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ABSTRACT

As a final report on alienation and achievement among 753 Oglala Sioux secondary school students on the Pine Ridge Reservation, this document attempts to portray the circumstances affecting the Indian child in school. To provide a basis for comparison, the sample also contained 855 white secondary school pupils. General findings which are believed to contribute to the Indian child's severe cultural disruption are that alienation increases as intelligence and achievement decline: that alienation tends to be significantly greater among those who do not continue their education than among those who continue attending school: that as degree of Indian blood increases, intelligence and achievement measures decline; and that as Indian children progress through school, alienation scores tend to be reduced and IQ increased. It is also noted that teacher role is believed to play a significant part in academic success of the Indian student. It is concluded (1) that factors of political and economic realities in which Indian students exist override immediate local influences and (2) that any thoroughgoing program must deal with the fact that poor performance or failure to complete schooling is very much a function of alienation on the part of the child in a conflicted community where middle-class values clash with residues of the Indian cultural heritage. (FL)

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FINAL REPORT

Project MH 11232

ALIENATION AND ACHIEVEMENT AMONG OGLALA SIOUX SECONDARY SCHOOL STUDENTS

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August, 1970

National Institute of Mental Health
Department of Health, Education, and Welfare
Public Health Service
Washington, D. C.

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And finally appreciation is acknowledged the students who participated in this research. The hope of the investigator is that the outcome may contribute progressively to the future of a noble people, specifically the Oglala Sioux and through them to the American Indian in toto.

Preface

This report is largely technical in nature. The immensity of the project precludes, at this time, much more than a presentation of formal data. Nevertheless, a few incursions into values, bias, hope, and speculation have been undertaken. The writer makes no pretense of embracing objectivity in the sense of being detached from the significance of the problems studied. The area investigated was not selected for research out of dispassion. Neither are the methods employed the only ones that might have been utilized. Lastly, the interpretation of the findings are not given without some emotion, though an effort has generally been made to keep this to a minimum. Still the dominant feeling is one of incompleteness, of unfulfillment. Critical readers will undoubtedly serve a constructive function by pointing out these theoretical and methodological gaps.

If anything comes of this work, it should be a perspective that, in recognizing the complexity of the problems researched, denies the validity of simplistic attempts to place the blame for what exists. The responsibility is that of American society, not the BIA, the schools, the teachers, the children or their parents and communities. All reflect the contemporary economic, political, social and educational expressions of a tragic history. But we cannot use history and complexity as excuses for inaction.

The process that we observe must be the object of interference at every point possible. We must work with the child and the teacher in the classroom, and with the school of which that system of child-teacher-classroom is an integral component. Attention must also be directed at working with the school as part of a larger context, the community, and then with both as reflecting other influential environments up to the national level.

In the last analysis, the kind of change needed will be premised upon the growth of conditions that permit all of those involved in the educational process to realize their potential, their ability to act as individuals in a fully social manner. There is so much more to learn and to do. As Goodman (1964) notes, "fundamentally, there is no right education except growing up into a worthwhile world" (pp. 73-74), thus we must continually ask ourselves as we pursue this goal, "Are we part of the problem or are we part of the solution?" (Montagu, 1950, p. 118). It is so difficult to know.

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Alienation and Achievement Among Oglala Sioux Secondary School Students

Chapter I: Introduction

National attention is increasingly being focused on the plight of the American Indian. Low achievement and evidence of severe political, economic, social, and psychological deficiencies are characteristic of many tribal groups, hence in the current jargon, the Indian is considered a disadvantaged minority. This abstraction has, however, been given embodiment by Barreis (1956), Brophy and Aberle (1966), Fey and McNickle (1959) among many other concerned individuals (Hoyt, 1962; Steiner, 1968). One area which has been singled out for special attention is Education, possibly because of the seriousness of the problems encountered in this domain, and the faith of Americans, in general, that education and schooling represent the prime avenues for personal and social betterment open to members of our society. As C. Wright Mills (1953) so meaningfully observed. "...the educational segment of the individual's career becomes a key to his entire occupational fate...formal education becomes central to social and economic success" (266-267).

The Teton Dakota or Sioux illustrate well the current status of American Indians. Failure to achieve an adequate education is demonstrated by the fact that over 50 percent of Sioux youth do not complete high school. Initially low and decreasing intellectual performance with increasing grade level plus a high incidence of alcoholism, crime and delinquency further complicate this picture (Artichoker, 1958; Bryde, 1965; Coombs, Kron, Collister and Anderson, 1958; U. S. Department of Agriculature, 1963; Havighurst, 1957; Havighurst and Neugarten, 1955; MacGregor, 1946; Spilka and Bryde, 1964; Thompson, 1963). An awareness of present conditions and circumstances is not likely to foster a spirit of hope yet many signs of ferment and change are in the air which speak to the potential of considerable innovation and growth in the relatively near future.

The present report represents one attempt to provide a balanced and relatively comprehensive overview of the psychosocial problems plaguing education among Indians. The Sioux on one reservation, Pine Ridge, were chosen for study. It is felt that the educational problems confronted by this group are representative of those widely observed among Indian tribal bodies in the reservation setting.

Though the emphasis here is mainly psychological with assessment largely directed at pupils and a selected parent sample, the impossibility of separating these considerations from their socio-cultural context is acknowledged. In specific, it was the purpose of this research to determine the current status of educational achievement and associated abilities on the part of Sioux pupils in the seventh through the twelfth grades since this period seems to be extremely critical in terms of performance and continuation in school. An attempt was then made to establish correlates of school performance in a variety of domains. These included the development of measures to assess pupil and parent outlooks with regard to the attitude-motivation complex termed alienation. In a like manner achievement motivation, attitudes toward school, aspirations, and child-rearing practices were evaluated relative to selected demographic and background factors. A tentative approach to the assessment of teacher-pupil personal distance was also attempted. In order to gain some perspective on Indian views and behaviors, a comparison sample of white children was obtained from communities in South Dakota and Nebraska adjacent to the Pine Ridge reservation. A theoretical framework was developed to provide direction for this work, nevertheless the massive amount of data collected, analyzed and reported here illustrates first the exceedingly complex transactional nature of these problems.

Resolution of such difficulties is by no means simple and will require extensive program development in education along with extra-educational political, economic and social change.

Chapter II: Theoretical Background

Introduction

In recent years Americans have been made aware of what Harrington termed, "The Other America" that of the previously invisible and inaudible poor. The initiation of the "War on Poverty" and a new readiness on the part of the economically disadvantaged to become politically and socially effective have spurred public officials and social scientists among others to undertake constructive action for the betterment of those outside of the mainstream of American life. Not the least of those stimulated to self-examination and the development of new perspectives are educators. A tremendous variety of books, papers and educational materials and equipment to aid "underachievers", "the culturally disadvantaged" and "dropouts" has thus appeared on the market.[1] Though the merit of the majority of these approaches is still not evaluated, there can be little doubt that a massive effort is being undertaken to utilize education as one avenue for solving the broad social problems of poverty and minority life. Despite this re-affiramtion of America's faith in the significance of education, the schools cannot be separated from the sociocultural context of which they are a part. Teachers and educational administrators represent a value framework that may and often does interfere with their understanding of children in whom one usually observes the effects of their own group's culture plus that of the subculture of poverty in which they reside.

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[1] The language used by well-meaning educators to describe the school problems of the poor and minorities frequently involve value-premises that interfere with educational progress and improvement. These need to be understood and countered before meaningful and constructive educational experiences can be provided children from economically deprived and culturally different circumstances than most schools reflect.

A truly adequate theoretical framework for viewing the educational difficulties of the minority poor must thus emphasize the interrelatedness of cultural and psychological forces as these find expression within the school and classroom setting. Approaches that encapsulate the individual child psychologically such as those that emphasize his adjustment to the school are necessarily as incomplete as sociological, educational or anthropological orientations which are restricted to their own institutional domains. Needless to say it is not possible to provide here the complete theory with its supportive data that the area of educational problems among Indians truly requires. It is, however, hoped that the information presented, though stressing the psychological aspects of this problem-complex, manifests enough flexibility to permit necessary elaboration on group and institutional levels of analysis.

The Current Status of Indian Life: Some Generalizations

When one speaks of Indian culture, images of warriors, hunters, feathered headdresses, teepees, pottery-making, papooses and the like are called to mind. These are gone except for a highly selective revival of certain items of apparel, various dances and similar vestiges of an honored past that are periodically exhibited on ceremonial occasions. Despite the uneven presence of a local Indian language, most classical cultural elements are relegated to antiquity. The trained eye of the anthropologist undoubtedly discovers more of the Indian's heritage than at first glance appears to exist. Though their political and economic structures have largely been destroyed and social relations necessarily disrupted, some cultural residues persist. For example, child-rearing practices and the form of immediate personal relationships may undergo a much slower transformation. The continued use of a native language must also carry with it meanings and values that support different outlooks than those which generally prevail in American society. Naturally, great variation in such cultural elements exists among tribal groups. Nevertheless it is extremely important to accept the fact that the Indian culture of the past is quite different than that of today.

History, language and legend may have their place in reinforcing and developing a positive identity and conveying a sense of personal worth and dignity. The group will-to-live is a most significant weapon in the armamentarium of individual life especially for those who have little else to maintain themselves psychologically. Still it must be noted that individuals concerned realistically with the problems of Indians must have their encounters with the contemporary world rather than a romaticized history.

In this time of minority group awareness and the search for new means and values that will permit one to improve both his own condition and that of American society, the Indian can only look up. Economically, he is at the bottom of the nation with the average family having an income of approximately $1500, half that considered the poverty level. As might thus be expected, unemployment rates from 30 to 80 percent of the labor force are apparently common (Baumgartner, 1964; Brophy and Aberle, 1966). Over 90 percent of housing is considered substandard (Conway, 1964), undoubtedly a correlate of the widespread indications of extremely poor health among Indians. Though demonstrating a birth rate twice that of the nation as a whole, Indians manifest a parallel incidence of infant mortality (Brophy and Aberle, 1966). Rates for tuberculosis 8 times the national average have also been reported (U.S. Department of Interior, 1964) while the relatively rare eye disease, trachoma has been found in 25 percent of Indians with some specific groups showing rates in excess of 60 percent (Fahy and Muschenheim, 1965). It is therefore notsurprising that Indian death rates adjusted for age are some 20 percent higher than among non-Indians (Hoyt, 1962). Median age at death is 42 years, over twenty years less than for the U.S. population (Conway, 1964; U.S. Department of Interior, 1964). In one study of urban Indians, average age at death was 37 years, 11 years less than for rural Indians in the same area and 31 years less than other urban residents (Fey and McNickle, 1959). In like manner, exceedingly high rates of mental disorder, alcoholism and suicide among other conditions suggest extreme psychosocial deregulation (Dizmang, 1967; Fahy and Musschenheim, 1965; Hoyt, 1962). An objective overview of Indian life in the United States in terms of statistics such as these hardly conveys images of a viable, integrated people organized into smoothly functioning communities. In fact, the picture is one of severe cultural disruption.

The Sioux at Pine Ridge

The Pine Ridge reservation is a microcosm of the Indian's national situation. In 1956, half of the potential labor force were employed (Hagen and Schaw, 1960). By 1968 this had reduced to 35 percent, still nine times the national unemployment rate. Some two-thirds of Pine Ridge households brought in less than $3,000 annually, an amount usually regarded as indicating poverty (Pine Ridge Research Bulletin, June, 1968). Correlated with this poor economic picture is that of education. In 1968 the median school year completed by the over 25 age group was 8.8, over three years less than for the U.S. white population and also slightly below that of American Negroes (Pine Ridge Research Bulletin, April 1968). There are the usual indications of high disease rates especially of tuberculosis; however, the severity of social disorganization is better revealed by the prevalence of juvenile delinquency, alcoholism, and a variety of signs of psychological deviance. The incidence of juvenile crime is estimated at nine times that of the country in toto (Pine Ridge Research Bulletin, December 1968), while 80-90 percent of Pine Ridge youth are believed to have had some personal experience sniffing gas or glue (Pine Ridge Research Bulletin, August 1968). A study of suicide conducted in 1966 and 1967 indicated a suicide attempt rate over twice that reported for Los Angeles, an urban area with an extremely high incidence of its own (Pine Ridge Research Bulletin, January 1968). It is not difficult to supplement these data with many other evidences of community disorganization and disorder. In sum they strongly suggest that the plight of the Indian on the Pine Ridge reservation is tragically representative of the state of this people throughout the nation. Statistics such as those briefly offered above hardly imply the effective operation of a viable set of cultural norms whether they be of Indian or white origin. At all levels of analysis signs of extreme psycho-socio-cultural disruption are present.

A Theoretical Perspective on Society, Culture and the Individual

There can be little doubt that conditions on the Pine Ridge reservation are extremely undesirable by all human standards. In order to comprehend what is happening, a theoretical perspective is necessary and this should mirror both the operation of the reservation community as a whole and the probable behavior of individuals under such circumstances. There is, of course, a wealth of general and specific information and speculation to provide direction in this venture, and some of those who offer such outlooks have worked in similar settings (Jessor et al, 1968; Tefft, 1965). The full development of such a perspective would require more time and space than is available here, and since the main elements of a theory acceptable to the present writer have been presented elsewhere, liberal reference is made to these other scholars and their writings. The procedure used will be to sketch in general basic facts and views rather than to offer a truly detailed explication. Since reference will be made to scholars who have already supplied the necessary elaboration, it is felt the interested reader can avail himself of their works. It is, of course, hoped that the generalizations made are reasonable, coherent, and possess heuristic value.

In essence the task is to understand individual behavior. Such responsivity may, of course, have many sources and correlates; however, at least four levels can be expediently distinguished for purposes of analysis. These may be termed: the Biological, the Socio-cultural, the Group, and the Individual-Idiosyncratic. Very briefly, it may be concluded that explanations of complex behavior based on biological, constitutional and genetic referents have not proved useful and may be eliminated from consideration without fear of serious error.

The second major basis for individual behavior derives from the fact that large numbers of people show similarities in outlook and response by virtue of belonging to the same society and thereby sharing a common culture. Analysis of the socio-cultural level reveals two major dimensions or substructures. Robert Merton has termed these: cultural structure and social structure (Merton, 1957). The former refers to "that organized set of normative values governing behavior" (p. 162), while social structure denotes "that organized set of social relationships in which members of the society or group are variously implicated."

(p. 162). Respectively we are dealing with value-patterns and social relationships. Clearly these structures are antinimously related.

To gain a more comprehensive understanding of the manner in which cultural values have become introjected and expressed, we need to know where a particular person is located in the matrix of groups that form the social structure. This group level acts as a refining framework through which the cultural structure is filtered to individuals. Group life may be formal or informal, yet it provides anchors for self and other definition. One is thus known as a member of a certain family, sex or age grouping, religious body, occupational group or ethnic category as the Indian distinction, "full blood" or "mixed blood" may suggest. In the present undertaking, an effort is made to understand the educational achievement of the Sioux student at Pine Ridge primarily as a function of socio-cultural and group forces.

Reference, in the last analysis must, however, be made to the individual. The uniqueness of each person is an undisputed fact. Within the contexts provided by the above levels, there is much room for individual, idiosyncratic experience. In his face-to-face contacts with others, especially family members, learning and perception occur and motivation is developed. The family is the first filter through which group and socio-cultural influences condition behavior. A caution must be introduced here to negate the idea that we must either embrace a total cultural determinism or an equally limiting individual determinism. Goodman (1967) counters the former by observing that "culture is not the determinant of behavior. Culture is, rather one of the foundations and boundary conditions upon and within which the individual and his potentialities develop." (p. 34). In a like manner, certain thinkers have tended to see collective behavior solely in terms of personality and intrinsic motivation. This position must also be rejected and individual behavior pictured as a balance between and across acculturation and the exercise of individual autonomy, reason, and creativity (Goodman, 1967).

Even though the unity of the individual is foremost in this scheme, it is not inappropriate to abstract for analytic purposes at least three major within-individual process-levels. We might begin with allusion to the "why" of behavior as conceptualized on a behavior or response-activating level. This includes what is usually discussed under the heading of motivation. The activation of behavior must be coordinated with situational requirements and limitations thus calling forth integrating processes as may develop via learning and perception. Hence a second intra-individual dynamic is suggested. This might be denoted a response integrating level. Clearly learning and perception are inseparable. Many have pointed out that for something to be learned it must first be present in perception, which implies that it has to be of significance to the person (Helson, 1951). Connectedness of the response activating and response-integrating levels is illustrated by the fact that much motivation is learned, and that motivation can and does influence what is learned, how rapidly learning takes place, how efficient it is, and finally the content and accuracy of perception.

The outcome of response activation and integration is behavior itself. Thus we have a behavioral or response level. The complexity of behavior cannot be minimized. We often look at whether or not a problem is volved, not how it is handled, though the latter may give us many more cues than the former to the nature of the individual. Within the framework suggested here, the assumption is made that behavior always represents an active, coping process in which the person is not simply trying to adjust or adapt to circumstances but to maximize and realize himself, to utilize his capacities to their fullest. Behavior that is spoken of as abnormal, inefficient, defective, or undesirable may still reflect the best of the individual in his current circumstances. The way he acts may be surprisingly appropriate even if we fail to appreciate it.

In the grossest way, a broad scheme for understanding individual responsivity has been presented. The task proposed here is to fill the rather immense gaps that exist in this framework as it relates to Indian children in educational settings. Fundamentally, we are dealing with the classical problems of cultural transmission and the apparent culture-personality distinction--the articulation of society and the self.

No attempt will be made to discuss in depth problems of definition relative to the concepts of personality and culture. Neither will obeisance be paid to that social-scientific tradition which asserts that definitions must be given for every term employed, a practice usually followed by purging one's mind of any denotational circumscription. The position of Hsu (1961) "that attempts at delineating boundaries for culture-and-personality would do more harm than good" (p. 1) is thus accepted. Though attention may be directed at different levels in the society, culture, individual transaction, none of these conceptual referents can be distinguished as fully independent variables (Hallowell, 1962). In like manner, Spiro (1961) postulates "an intimate relationship between social systems and personality: social systems operate by means of personality, and personality functions by means of social systems." (p. 95). Since these referential levels do possess realities of their own, the meaning of which can only be evident relationally, it is essential that parallel inferences be drawn regarding their formal properties. This will support an interdisciplinary approach that is essential to understanding problems such as studied here (Jessor, 1962).

Social Change and Value Conflict: The Anomic Social System--General Considerations and the Indian Situation

The Historical Context

The collective behavior of individual men and women is fundamentally a problem of history. Thus it is that contemporary Indian life cannot be understood without briefly recalling past facts.

The arrival of whites on the American continent in large numbers and with weapons and tactics that the native peoples could not withstand for any length of time set the stage for establishment of a relationship between "the colonizer and the colonized" as this has been described by Memmi (1967). Systematic destruction of the economic and political base of Indian society sometimes took the form of conscious genocide (Andrist, 1964; Collier, 1947). As the social structure crumbled, institutional supports for the Indian values or cultural structure also weakened. The result, as might have been expected, and as we see today, was disastrous for the Indian, socio-culturally and psychologically.

Many forms of accommodation are possible between conquerors and subject peoples, but fundamental to all is a period of acculturative stress and conflict, the length and severity of which is dependent on the willingness of the host society and the new group to accept each other. This, of course, means tolerance and genuine understanding of cultural diversity, a state of affairs rarely encountered in relations between those with power and the powerless. And so it was in white-Indian transactions that overt conflict was often replaced by a covert, superficially passive pattern of hostility and rejection. At the root of this was the attempt by the white to make the Indian into a replica of the European Agriculturist with the supportive Western cultural trappings of Christianity and the Laissez-faire economic order. At the same time he was to be exploited. In opposition, the Indian struggled to retain the values and practices of his heritage and thereby a group identity. Indian-white relations, however, took place within a context of white dominance and power. The Sioux were like many other tribes confined to reservations which were hardly choice areas in terms of land, water, or any known potential. Military authority was often in evidence and dependence on white governmental agents and offices was strongly fostered, by force if necessary. Thus Macgregor (1946) writes that Indian children "were virtually kidnapped to force them into government schools, their hair was cut, and their Indian clothes were thrown away. They were forbidden to speak in their own language. Life in the school was under military discipline, and rules were enforced by corporal punishment" (p. 36). In like manner, Hyde (1937; 1956) writes of the high-handedness and corruption of Indian agents and the military in providing food and other supplies to the Sioux, a practice reinforcing a dependency on the white power structure. In addition, many devices were employed to undermine the authority and respect of Indian leaders, and though these were not very successful, they were part of a process that gradually reduced effectiveness of Indian methods of social control, while strengthening those of white society on the reservations. Neither Congress nor the Bureau of Indian Affairs were wholly consistent in their formulation or application of the law, and the resulting instability of white-Indian relations did not work for the creation of viable standards for the behavior of each group toward the other. It was thus natural that a somewhat normless and conflicted situation tended to develop. From the white viewpoint this occurred within the justifying framework of upholding Indian rights and aiding this people to establish their own independence and proper place in American society. The error of this interpretation is at the same time one of the institutionalized rationalizations that colonial powers use to justify their actions, and so it has been through much of our history. Increasing white and governmental awareness of past inhumanities and current shortcomings, many of which are holdovers from an unhappy previous time, appear to be combining with a new militancy on the part of the Indians themselves to create novel and probably radical programs to improve present conditions. However to comprehend what the past has given us, and what the present portends for the future, we need to examine further the meaning of white-Indian relationships.

Indian and White Culture Conflict: Anomie

The heart of a culture is its ethos, that "system of ideals and values that dominate the culture and so tend to control the type of behavior of its members" (Kroeber, 1948; p. 294). Many scholars have demonstrated that Indian cultural traditions and practices reflected a high evaluation of human life and welfare (Farb, 1968; Josephy, 1968; Hassrick, 1964; Sandoz, 1961; Underhill, 1953). Social organization and control were well developed and a viable cultural order apparently flourished prior to the coming of the white man.

The ethos of white-American and Classical Dakota cultures are apparently quite different in emphasis (Bryde, 1964; 1965;

Erikson, 1963; Macgregor, 1946; Wax, et al, 1964). Where the former primarily stresses success and achievement in materialistic terms (Spilka, 1968; Williams, 1960), Sioux values stress autonomy in which the individual's efforts and actions contribute to the betterment of the group. Thus, bravery, fortitude, generosity, and moral integrity or wisdom were employed less for self-aggrandizement than for realization of tribal goals (Hassrick, 1964). Hagen and Schaw (1960) also call attention to the primacy of the group over the individual in terms of the nomadic and often survival economy of the Sioux on the Plains. Individual hunting and fighting skills were lauded since they were essential to group viability. On the other hand, "individual assertiveness was jeered at and shamed except when it was on behalf of the group.... competition, for personal advancement, was a sign of personal un-trustworthiness, a sort of perversion" (Hagen and Schaw, 1960; p. 3-4). The obvious need only be repeated in passing, namely that this pattern of existence and valuation was and is remarkably discrepant with that of white America.

Naturally, this view is somewhat of a simplification and must be considered in the light of the usual human weaknesses which the Sioux, like all too many peoples, liberally possessed. Nevertheless, as Hassrick (1964) repeatedly observes, the four central values or virtues of Dakota culture were regarded as essential to the preservation of an harmonious social order. Honigmann (1961), McNickle (1962) and the Spindlers(1957) further suggest that the above characteristics tended to be true of Indians in general. Sharpening the contrast between white and Indian values these scholars also note the non-acquisitive nature and short time perspective orientations of the Indian, traits antithetic to those of the New World Europeans.

The outcome of this confrontation has been discussed, in a general way, by Wallace (1961). He refers to the contact between two social orders in which that with greater power attempts to enforce its will and values on the weaker. The application of coercion

> ...brings about uncoordinated cultural changes. Under conditions of disorganization, the system...is unable to make possible the reliable satisfaction of certain values which are held to be essential to continued well-being and self-respect. The (response) of a culturally disillusioned person, accordingly, is an image of a world that is unpredictable, or barren in its simplicity or both. His mood (depending on the precise nature of the disorganization) will be one of panic-stricken anxiety, shame, guilt, depression, or apathy (Wallace, 1961: p. 144).

This is a fairly accurate representation of the Indian-white culture contact-conflict situation. Indian society became disorganized. The basis for traditional authority relationships was destroyed along with its economic foundations. The Indian then struggled to regain, maintain, or develop a new normative framework for individual and collective behavior.

Many students of this problem area discuss at length the various forms of socio-cultural and individual stress that are concomitants of coping with this disordered state of affairs (Spindler and Goldschmidt, 1952; Thurnwald, 1932; Wallace, 1961). The descriptions of the tragic condition of the Indian, and, in particular, the Sioux, offered earlier are appropriately illustrative of this discussion.

Wallace's description of social disorganization includes both the level of society and culture and that of the individual. Though the two are fundamentally inseparable, concepts are needed to clarify what occurs on each of these levels and how mediation of behavior occurs across them. It is felt that the terms anomie and alienation perform such a function well with anomie defined as "A societal condition..., alienation... a psychological state" (Nettler, 1957; p. 671). In great detail, others have elaborated these ideas, both in general and in essentially similar situations to that encountered here (Clinard, 1964; Dean 1961; Jessor, et al, 1968 Seeman, 1959; Yinger, 1964; 1965).

Anomie and Contemporary Culture Conflict

Turner (1953-1954) points out that social disorganization is primarily a conflict of values. Value-conflicts lead to a deterioration of ordered normative behavior, because conceptions of right and wrong, approved and disapproved action become unclear.

Merton's scheme of cultural and social structure cited earlier is quite useful for conceptualizing the anomic circumstances in which Indians exist. As he notes, "Anomie is...conceived as a breakdown in the cultural structure occurring particularly when there is an acute disjunction between the cultural norms and goals and the socially structured capacities of members of the group to act in accord with them" (Merton, 1957; p. 162). Further reference is made to various degrees of anomie in which "simple" anomie describes the "state of confusion in a group or society which is subject to conflict between value-systems", while "acute" anomie refers to "deterioration and, at the extreme, the disintegration of value-systems" (Merton, 1957; p. 163). In other words, "when there is little agreement on appropriate means to approved goals, or when many persons are caught in circumstances where appropriate means are inaccessible, or when institutional crises...block the road to expected satisfactions anomie exists. (Yinger, 1965; p. 189).

With regard to the present work, the value-systems in conflict are, of course, the collective heritage of the Dakota and the individualistic-competitive tradition of western civilization. Eriksen (1963) thus claims that "the Sioux have been denied the bases for a collective identity formation and with it that reservoir of collective integrity from which the individual must derive his stature as a social being" (p. 154). Bryde (1965) similarly observes that the "Sioux, trying to utilize behavior normal to their heritage, meet constant frustration" (p. 2). Considering the Pine Ridge situation, McGregor (1946), over 20 years ago, offered a view which is as true today as it was then. He noted that "The cultural position of the Pine Ridge Indians lies between the two extremes of the white-assimilated mixed-bloods and the unassimilated full-bloods who live in the shadow of their former Indian culture" (p. 25)[2]. In other words, "the majority of the Pine Ridge Dakota are marginal people both as whites and as Indians" (Macgregor, 1946; p. 27). Havighurst (1957) also suggests that the Sioux Indian is a marginal type, "a man of two cultures" (p. 107), the Indian and the white. In reality, this means that the Indian is caught between two cultures; he is outside of, and between both, his own and that of the white (Paxton, 1962).

Though MacGregor (1946) and others have used this model of the Indian forced with a choice of clinging to Indian ways or following the road to white assimilation, Wax, et al, 1964) denies this simple dichotomy of "full blood" and "conservative" vs "mixed blood", assimilated, and invokes the highly complex nature of defining social and cultural structures. Questions of status, legal rights, self- and other perceptions, etc. suggest how difficult it is to make easy polarized distinctions of Indian "types." Not the least of these complications stems from the fact of poverty which characterizes the lives of the majority of Indians. That anomie is a correlate of economic deprivation has been extensively documented (Clinard, 1964; Merton, 1957; Mizruchi, 1964). In fact, questions of "Indianness" or "whiteness" may have to take a back seat to those of the effects of poverty. Current conditions may better represent extreme poverty than Indian-white conflict.

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[2] Both Macgregor (1946) and Wax et al (1964) emphasize that the terminology, "mixed blood" and "full blood" denote "sociological rather than biological groups" (Macgregor, 1946; p. 25). Usage here of this language will be in the same vein.

In sum, the reservation situation, and in specific that of Pine Ridge, can be viewed as anomic for a number of reasons. There is first the historically based confusion of values emanating from both the Indian and white traditions. Second, this is further confounded by what might be termed, the "culture of poverty", a phenomenon, which is increasingly being appreciated (Harrington, 1968; Herzog, 1966; Lewis, 1966). Though Indians were always poor by white standards, their economic condition really acquired negative significance when relationships between these groups took place within the framework of western values and institutions. Accepting the complexity of reservation life discussed by Wax et al (1964) plus the denial of a simple mixed-full blood dichotomy, it is still hypothesized that rather strong tendencies exist for Indians to establish either a collective identity based upon a relatively poorly defined Indianness, considering the facts of history and poverty, or to turn for self-definition toward the white world. The present writer thus feels a strong case can be made, on the basis of theory and research data, that Indians on the Pine Ridge reservation possess both white and Indian-poverty orientations which make for social conflict, misunderstanding, and behavior that speaks of the classical anomic situation with its high rates of psychosocial disorder.[3]

A Psychological Perspective on Conflict: Alienation

Spiro (1961) has commented that "social systems operate by means of personality, and personality functions by means of social systems" (p. 95) hence for purposes of analysis and understanding it is necessary for us to proceed from the study of the historical-cultural level to that of the individual.

A conflicted and anomic sociocultural system is tantamount to normless and deregulated circumstances. Ambiguity results from situations and sources with different instructions on how one should live and what should be done. Life comes to possess a fatalistic quality in which meaninglessness and senselessness occupy central places. Frustration becomes endemic since an inability to cope with the world appears to prevail. Natural are feelings of powerlessness with an attendant shortening of time perspective and denial of the relevance of long term goals and activities (Allen and Sandhu, 1967; Roberts and Hermann, 1960).

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[3] Anomie theory has often implied the necessity of socialization to and acceptance of the dominant social system (Horton, 1964; 1966). Such is not intended here. Anomie is employed not to denote "deviance" and "order" but conflict among groups on historical-socio-cultural bases.

A complex of personal-psychological characteristics is thus pictured and though called by various names, that favored by the writer is Alienation. This concept has a long and involved history, and has come to mean many things, all rather negative. Durkheim stressed the fact that an individual would feel afloat in a normless situation, while Marx emphasized the development of self-estrangement, the failure to develop a sense of viable personal identity (Durkheim, 1960; Marx, 1960). Dean (1961) focused on three aspects of the concept: powerlessness, or a feeling of helplessness and and futility; normlessness, a lack of standards to denote right and wrong; and social isolation, a state of detachment from others. Seeman (1959) emphasized the theoretical formulations of Rotter (1954) and placed alienation within a social-learning framework, a position further developed by Jessor et al (1968) for their research which involved Indians. Included under the rubric, alienation, by Seeman is meaninglessness, the low expectancy that one can predict the future. Self-estrangement is taken to mean that one does not control himself, but finds his behavior directed toward alien ends. This is similar to the view held by Erich Fromm (1955). In addition to the above, Seeman also posited normlessness, powerlessness and isolation as did Dean (1961). Elmore (1964) operationally approached this problem and claimed to isolate five factors of alienation. Validating those of Dean (1961) and Seeman (1959), he added the concepts of valuelessness, the perception of value-contradictions in social life plus the untrustworthiness of authority; hopelessness, which seems to direct the components of normlessness and meaninglessness toward a bleak, purposeless, pessimistic future orientation; and closedmindedness, a narrowing of one's outlook.

Different aspects of alienation have been emphasized by various researchers. Though he postulated a complex system, Seeman,(1963; Neal and Seeman, 1964) has singled out powerlessness as the core element in alienation. Jessor and his associates (1968) perceive social isolation of prime significance in their cross-cultural studies of alienation. In like manner, Nettler (1957) has examined self-estrangement.

Empirically and theoretically, alienation means many things. It is possible that this perception-behavior complex is manifested differently in various populations so that specific expressive forms dominate in certain settings while others prevail elsewhere. Since alienation appears to be multidimensional, it is also possible that various kinds of disordered behavior may relate to one or another of its components. In this regard, some workers (Singer, Blane and Kasschuau, 1964) have observed that social isolation is a correlate of alcoholism. Dean (1965) found this same characteristic to be associated with marital strain among men, while women in similar circumstances demonstrated marked feelings of powerlessness. Low educational achievement and deficiencies in knowledge have also been revealed as concomitants of powerlessness; however, meaninglessness, normlessness and self-estrangement appear to contribute to these relationships (Middleton, 1963; Seeman, 1967, Spilka and Bryde, 1965). Taking the syndrome-complex of alienation per se, much research has shown that these tendencies increase with declining socioeconomic status, the presence of poverty (Hammonds, 1964; Mizruchi, 1960; 1964), and minority group affiliation (Hammonds, 1964; Lefton, 1968; Middleton, 1963). Demographic and sociocultural factors do not, however, completely explain the presence of alienation; psychological and personality variables are also associated with these feelings and outlooks (Davids, 1955; McClosky and Schaar, 1965). For example, as significant as low economic status may be in fostering alienative modes of response, those who perceive their deprivation show these tendencies much more strongly than persons not really aware of their plight (Hammonds, 1964).

Alienation and the Indian

Though many of the foregoing characteristics of alienation have been observed among Indians, this concept has been only recently and infrequently applied in research on psychological responses of Indians to their situation. Most efforts to gain information in this area have seen a simple transplantation of traditional theory and method across cultural lines. It is usually implied that sociocultural factors are likely to be superficial in their effects hence the skilled analyst will be quite able to denote "basic" personality structures (Kardiner, 1939; 1945). A standard feature of this approach is to employ well known psychological tests of the projective or objective variety. The Rorschach "Ink Blot" Test and the Thematic Apperception Test (TAT) are most popular, but a wide variety of other similar devices have also been employed (Barnouw, 1963; Dennis, 1966; Kaplan, 1961; Lindzey, 1961. In addition, usage of objective personality examinations is not uncommon, even if originally standardized on white, middle-class samples (Artichoker, 1959; Bryde, 1965; Krush et al, 1966; Nelson et al, 1964; Safar, 1964). Because of serious questions relating to the validity of these devices, discussions of findings relative to "mental health" and syndromes such as depression, schizophrenia and the like need considerable re-examination.

It is contended here that attempts to understand psychological patterns among Indians must reflect the previously cited unity of culture and personality. The concepts used to describe individual outlooks and behavior should therefore relate closely to the objective sociocultural conditions under which Indians live. As already noted, the notion of alienation appears to fulfill this function adequately.

In the few instances where research has been carried out on alienation, the findings obtained do suggest the relevance of this approach. Studying Arapahoe, Shoshone and white teenagers, Tefft (1965) demonstrated what might be termed the low value consensus of alienative meaninglessness and powerlessness among the Arapahoe youth. Of the two Indian groups, the Arapahoe also reveal the greatest evidence of anomic cultural circumstances.

Bryde's (1965) extensive investigation of educational achievement among Sioux and white junior high school students showed very broad patterns of personality disruption on the Minnesota Multiphasic Personality Inventory (MMPI) on the part of the Indian children. These tendencies increased with degree of Indianness ("blood") and poor educational performance. Highly meaningful measures of social, self, and emotional alienation were included in this work and led Bryde to conclude that "The centrality of the concept of alienation is suggested as the integrating pattern explaining the behavior of the Indian students studied" (p. 133).

Concurrently with the above work, Spilka and Bryde (1965) carried out a pilot investigation of alienation and educational achievement among Indian children with the instrument developed by Dean (1961). Steady increases in the magnitude of relationships between achievement and Powerlessness and Normlessness were manifested between the 7th and 12th grades. At the 12th grade level, Social Isolation was significantly negatively related to achievement. On other words, as feelings of Powerlessness, Normlessness, and Social isolation increased, achievement declined. Since similar trends were noted for these factors and I.Q. the latter was statistically removed from these associations via computation of part and partial correlation coefficients. The outcome was a marked increase in the magnitude of the relationships. That for total alienation and achievement among 12th grade students revealed an almost perfect statistical association (.94). Extremely high and meaningful patterns were also demonstrated with powerlessness and social isolation, but not normlessness. One might conjecture that those who reach the 12th grade have gone considerable distance toward internalizing the norms of white society, hence normlessness is not a problem except relative to their life in the Indian community. Feelings of helplessness and isolation might thus result and performance could be adversely affected. It is relevant that social isolation was the only aspect of alienation which increased significantly with grade level in an orderly manner. This might lend support to the hypothesis that remaining in school tends to split the child from his peers and his Indian-poverty identifications.

The above pilot study led directly to the present investigation which was basically an effort to understand in greater depth the role of alienation relative to demographic, and psychological factors that might influence school achievement and continuation.

The role of alienation in the educational setting has also been shown by Miller (1968) utilizing the instrument developed by the present author in this work. Miller was able to show lower alienation on the part of Indian children in integrated as opposed to segregated school situations. On the basis of his overview of many factors contributing to problems of Indian children in the school, Miller concluded "there appeared to be a consistent, positive relationship between low cultural, economic, and social levels and low achievement, low intelligence, high alienation, and negative attitudes toward school and less vocational maturity. This finding held true regardless of race, geographical location, or type of school attended." (p. 108).

The work of Jessor and his colleagues (1968) extensively documented the relationship of anomic community indicators and alienation. These workers were also able to show that Anglo Ss always demonstrated significantly less alienation than did Indians, and the latter tended to show most deviant behavior and poor "adjustment" to the school situation.

American Education and the Education of Indian Children

The majority of research carried out on alienation among Indians reveals an awareness of education as central in the life circumstances to which Indians are subject. This may, in part, reflect the emphasis white America has traditionally placed on schooling. Our national faith in mass education has been matched by few if any other peoples, and as C. Wright Mills (1953) observed, education is the chief means of advancement for most of those in the lower and middle classes in our society.

From the beginning of white dominance over the Indian, education was perceived as the prime means of controlling and also integrating him into the mainstream of general-American life (Pratt, 1964). A very troubled history encompassing 100 years of Indian education tells us that the hopes formulated by devoted early pedagogues and others also genuinely interested in the enhancement of the Indian have yet to be realized. Just as the entire American educational establishment is a favorite object of criticism from many quarters, and indeed, it does merit much of this, so the educational arm of the Bureau of Indian Affairs performs the function of being a traditional "whipping boy" for those concerned with the tragic state of this people. The difficulty is apparently not that the schools which Indian children attend are different than those of Anglo children, but that they are too much like the latter. The problem may therefore be that of American schools and teaching in general; however, with all its shortcomings, constructive changes within the Indian school may well have a higher likelihood of occurring than elsewhere in our nation.

There is a vast and rapidly increasing literature on the education of the economically disadvantaged child. Serious question can be directed at the premises underlying most of this work since it is either based on "cultural deprivation as an educational ideology" (Wax, 1964), a heavy emphasis on considerations of "mental health" (Cervantes, 1965; Ringness, 1968; Torrance and Strom, 1965) or somewhat disembodied discussions of curricula and teaching methods (Beck and Saxe, 1965). A relatively small proportion of these volumes attempts to deal with the sociocultural environment in which school learning occurs and the nature of culture, group, and individual conflicts that characterize this transactional pattern (Deutsch, 1967; Passow, Goldberg and Tannenbaum, 1967; Spindler, 1955; 1963).

Unfortunately there is also a dearth of research indicating the psychological state of the economically deprived, minority group child in the school and how this might relate to familial and other factors in his situation. The above work most often concerns the residents of urban ghettos and is especially rare among Indians. Still there is no lack of compassionate, sensitive and undoubtedly insightful discussions of the plight of the Indian (Aurbach, 1967; Bass and Burger, 1967; Conklin, 1967; Forbes, 1967; Wax and Wax, 1964). As Kelly (1967) observes the lines must be more clearly drawn connecting the "statistical child and anthropological child", and though the present work may fall into the former category it is intended that it be relevant to that of anthropologists and educators. The final goal of this research is to point toward variables and patterns of factors that should be studied as part of Action Research programs. Action programs are proliferating at a rapid rate and subjective reports of their success or hoped-for-success abound (Aurbach, 1967; Conklin, 1967), but as Kelly (1967) also notes "there is no adequate allowance in some projects now underway for the measuring and testing of experimental programs. There are provisions for evaluation, but this is not research" (p. 3). It would not be erroneous to comment that even some of the most well regarded of these efforts have yet to provide indications of other than feelings of well-being for their constructors, supporters, and possibly those subjected to them. Virtually nothing of substance relating either to educational performance or the psychological state of pupils in such settings has yet been provided. It is hoped that the present research may suggest some directions for the assessment of progress which must eventually be substituted for these forms of "educational liberalism."

Before entering into a detailed explication of the dimensions of this research, it would be appropriate to cite very briefly some of the major parameters of American Education that may be essential to an understanding of the problems Indian children encounter in the schools. This will, of course have to be selective and will thus be based on factors noted in the relevant discussion and research. In addition, emphasis will be on the psychological implications of these elements of schooling for the Indian child. In fact, rather than provide for a direct assessment of the schools these children attend, the focus of this discussion and study is on the child and his home setting as these relate to the school situation.

It is well established that American schools are largely middle-class institutions that minister best to children who are highly motivated to achieve and who are also attuned to structured adult-child relationships (Dahlke, 1958; Warner, Havighurst and Loeb, 1944). When pupils come from backgrounds that differ in class and group values from those of mainstream America, they are likely to encounter difficulty during their schooling. This is usually manifested by poor achievement and a high probability of "dropout".[4] Such a pattern of inability to cope with the school on its own terms tends to characterize the lower classes and minority groups in American society. The failure process begins early and usually worsens with increasing grade level and deviance from the requirements of the school (Hickerson, 1966). Indeed we do violence to the complexity of the "teaching-learning transaction" (Bradford, 1958) when we abstract from the educational setting a few salient aspects for emphasis. Nevertheless it is hoped that these are central enough features to explain much about the problems of Indian schools and children.

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[4] The term, dropout, is unfortunate in that it deals with the end result of a long and complex process of conflict, failure and ambivalence at the center of which one finds the child who is pictured as leaving school fully of his own volition. It is evident that this is not a simple decision, the responsibility and burden of which should accrue to the child himself yet the use of terminology such as "dropout" suggests that this is where the difficulty solely lies. The assumptions and political implications of such language need exploration and should be accompanied by a deeper understanding of the transactional pattern which terminates in the failure of a child to continue his education.

Rather than repeat in greater detail the previous discussions of value conflict relative to white-American and poverty-Indian cultures, we can view the school as being at the psychosocial interface of these sociocultural referents. The school and teacher make demands for conformity and achievement that are quite natural to general-American society, but which have virtually no parallels within the history or ethos of either the Indian or his poverty circumstances. The object of the home-school confrontation would seem to center about the concept of individual achievement competitively arrived at. Educators value most highly such motivation and performance on the part of their students, but, it should be noted, that this cannot occur unless the child meets the school's criteria of conforming, well-disciplined behavior. Achievement therefore comprises both a pattern of social-personal conduct and intellectual performance.

The majority of the literature available on the Indian home and parental values and practices, especially among the Sioux suggest that the school looks for something quite different than that for which the child is trained in his home (Bryde, 1964; Erikson, 1963; MacGregor, 1946; Mirsky, 1937). An objectively conflicted situation is then hypothesized as being represented in the school child. His general background and circumstances do not dispose him toward school accomplishment as currently structured. He is likely to manifest low achievement motivation in "Western" terms. The high premium placed on this orientation by the educational authorities may result in a compounding of failure experiences that could further reduce motivation for academic success. Concurrently, negative attitudes toward the school are likely to develop and correlate with poor performance and the growth of alienative patterns and outlooks. Failure to remain in school would also be part of this complex.

The difficulty cannot in any transactional approach be localized within the school. Undoubtedly the home plays a not inconsiderable role. From what has been written regarding the values and practices of the Dakota family, especially in its current poverty setting, one might expect deviance from school standards to be a function of low socioeconomic status and "Indianness". In fact, these variables probably vary together so that as poverty and that crude measure of Indianness, degree of Indian "blood" will increase together. Mediation of these demographic referents may occur through the vehicle of child-rearing. Thus it is hypothesized that to the extent traditional Sioux child-rearing practices are in evidence or the similarly low-achievement oriented methods found in lower-class environments, the alienation-low school performance pattern will also be present. In order to understand this rather complex set of associations, it would be appropriate to buttress the above hypotheses by a brief review of what is known about achievement motivation and child-rearing practices, especially those of the Teton Dakota.

The Motivation to Achieve

The last decade has witnessed the growth of a voluminous research and theoretical literature on achievement motivation. David McClelland and his associates are the key scholars in this area. They have attempted not only to provide a firm psychological framework for their work but have also studied achievement motivation as an historical-sociocultural force (McClelland, Atkinson, Clark and Lowell, 1953; Atkinson, 1958; McClelland, 1961). Literally hundreds of professional papers and volumes have resulted from the investigation of McClelland's formulations (Atkinson and Feather, 1966; Heckhausen, 1967).

Though recognizing the cultural relevance of achievement motivation, McClelland (1953) does believe it to be a motive "common to all men" (McClelland, 1953, p. 77). In like manner, the importance of learning is stressed, but achievement motivation is said to be built out of "universal experiences with problem-solving--with learning to walk, talk, hunt, read. . ." (p. 78). Associated with these activities are standards of excellence such that the individual, either implicitly or explicitly, must accept the evident fact that his behavior always takes place within an evaluative frame of reference. It is McClelland's contention that standards of excellence and concomitant evaluation are present wherever there is man, and in social settings, comparative assessment is inevitably present. The meaning of such judgment is necessarily referable to sociocultural, group and personal sources.

The general-American heritage places great weight on success and achievement and some have considered this the prime American cultural value (Mills, 1956; Sarnoff, 1966; Williams, 1960). The pressure to achieve and thus succeed pervades our society and is reinforced by all social institutions, family, school, church, etc. (Rosen, Crockett and Nunn, 1969). Though all socioeconomic strata and groups within the American milieu are exposed to achievement-success motifs, legitimate means to attain these ends are least available to those at the lowest rungs of the socioeconomic ladder. Merton (1957) theorizes that anomie is a result of differential access to approved avenues to success goals. He posits a variety of behavioral responses to these circumstances most of which possess an alienative character.

The great value American culture places on achievement finds its most positive acceptance within the middle-class mainstream of our society. This is also the social level that has most strongly internalized success meanings in commercial and competitive terms, and which also views education as the prime avenue for personal advancement along these lines.

It is not to be construed that something is basically wrong if achievement values are stressed. Quite to the contrary for McClelland (1961) has shown that not only individual development but that of a social order is a function of a collective emphasis on high achievement. Questions, however, can be raised regarding the nature of the terms defining success and the social and psychological costs of achievement pressures (Glueck and Glueck, 1950; Lindgren and Mello, 1965). Fear of failure is regarded as a significant facet of achievement motivation, and the growth of such anxieties plus the consequences of actual failure cannot be lightly dismissed (Birney, Burdick, and Teevan, 1969). For American society, it would still appear that the middle class has made the strongest identification with achievement and success values, and is thus quite willing to accept and cope with any accompanying adverse effects.

It naturally follows from the foregoing that lower class persons will evidence less motivation to achieve than those of higher socioeconomic levels. Rosen's (1959) work on class factors and ethnicity among 6 groups revealed that social class was more significant than ethnic group in understanding achievement motivation which generally increased with class level. Crandall (1963) asserts that sociologists view middle-class families as valuing achievement motivation because it serves to maintain or increase social status. In contrast, lower class families do not necessarily view achievement orientations as leading to improved social position. This may, in part, account for the fact that lower class children are best motivated by immediate concrete benefits while those of middle class origin are equally activated by long-range, symbolic rewards (Berkowitz, 1964; Douvan, 1956; Hoffman et al, 1960). To the latter, achievement is more intrinsic in nature; to the former, more extrinsic (Terrell, 1958). If the question arises relative to low motivation being a function of lower class affiliation where the latter is assumed to be a correlate of reduced learning ability, this argument can summarily be dismissed. Class is not a factor in basic learning ability (Osler, 1967) though cognitive style may vary among lower class minority groups (Shrag, 1968).

Achievement Motivation Relative to Home and Child-Rearing.

Variations in achievement motivation have been demonstrated with respect to social class and ethnicity. In order to understand more fully the bases of these broad demographic influences, researchers have expended considerable effort within a wide variety of cultural settings studying the home environment and familial practices of different groups. Needless to say much contradiction and a great deal of confusion has resulted, but some general inferences appear warranted.

The weight of evidence suggests that achievement motivation is positively related to the presence of a stable, harmonious family life more or less in line with the general-American stereotype of the "happy" home. Children who come from broken homes or where friction exists between parents are therefore likely to show low achievement motivation (Thomas, 1956; Veroff et al (1960). Though most research on personality relative to early life experiences tends to stress the role of the mother, a number of studies suggest that the father is extremely significant in the socialization of achievement motivation (Bronfenbrenner, 1961; Katz, 1967; McClelland et al, 1953; Sarason et al, 1960). Heckscher's (1967) work on Barbadian Negroes directly relates underachievement to the physical absence of the father, and possibly indicates that such may result in a general weakening of home controls in many areas.

Family mobility has also been shown to adversely influence achievement motivation; however, such moving about seems to benefit children from the higher social classes while those at the lower end of the economic scale are likely to manifest a decline in achievement (Glidewell et al, 1966).

Probably most effort to understand the bases of achievement motivation has gone into examination of child-rearing practices, and among these, independence training has received most attention. Again, it must be cautioned that the results of this work are not definitive though fairly strongly suggestive.

Independence training refers to parental efforts designed to develop self-reliance and self-control on the part of the child. He is required to take on what his elders define as responsible behavior, so that he may be left to his own devices with minimum fear that he will either injure himself or do that which is disapproved by his parents. Undoubtedly the latter serve as models for such behavior in that strong, capable parents appear to have offspring who show a high degree of independence (Mueller, 1966).

Generally, the earlier independence training is undertaken and the more severe it is, the greater is the development of achievement motivation on the part of children (Crandall, 1963; Feld, 1959; Winterbottom, 1953; 1958). McClelland and Friedman (1952) were able to demonstrate such relationships cross-culturally, but these have only been tentatively supported by some others (Child, Storm and Veroff, 1958; Crandall, Preston and Rabson, 1960). Involved in this complex relationship is the willingness of the parent to give approval to the child in many situations, hence the child may become achievement motivated in order to obtain parental approbation (Crandall, Preston, and Rabson, 1960). Apparently high achievement expectations and demands by parents on both themselves and their children do seem to result in elevated performance and achievement motivation (Argyle and Robinson, 1962; Katkovsky, Preston, and Crandall, 1964a; 1964b; Rosen and D'Andrade, 1959). It also follows that intellectual undernourishment at home and environmental deprivation in the area of linguistic skills may negatively relate to school achievement and the motivation to perform on the part of the child (Brower, 1967; Deutsch, 1966).

The emotional climate of parent-child relations relative to achievement motivation seems to be somewhat in contention. Though a number of the earlier investigations indicate that a positive affectional home atmosphere favors the growth of achievement needs (Kimball, 1953; Rickard, 1954; Tibbets, 1955, Walsh, 1956), the majority of recent work supports the idea that severe, domineering and authoritarian parents may produce high achievers (Crandall, Dewey, Katkovsky, and Preston, 1964; Drews and Teahan, 1957; Hoffman, Rosen and Lippett, 1958). Studying Mexican-American achieving and underachieving students, Gill and Spilka (1962) showed high performance to be a function of maternal restrictiveness, but that that this affected boys and girls differently.

Clearly, the domain of parent-child relations as regards the development of achievement motivation is highly complex and not too well understood. Contradications abound in the literature, but this reviewer is inclined toward the view that achievement motivation is positively related to a home in which both parents are present and involved in the raising of their children. Pressure on the part of one's elders to be independent and responsible and also to perform in achievement and evaluative situations also appears to result in strong needs by children to feel competent and successful. It is also evident that the stresses and strains of a lower class environment and a survival existence are not likely to support achievement in traditional educational terms by either providing the necessary skills background for achievement or valuation of school performance.

Education and Achievement Motivation.

Though McClelland and his coworkers (1953) conceptualized achievement motivation as part of a general theory of human activation, psychologists and educators rapidly focused their attention on achievement in the educational sphere. A vast literature soon developed around school achievement and achievement motivation essentially became synonymous with academic performance. This interest has been a spur to the development of special educational programs to deal with the "underachiever" and the "dropout", and to understand both within and without the school those factors which unfavorably influence classroom academic behavior. Attention has thus been directed at home-school discrepancies, the teacher, school values, classroom climate, school-community relations, etc. In all of this work some measure of scholastic performance has invariably served as the criterion of actual achievement.

Inconsistencies in relationships among indicators of academic excellence and achievement motivation are not uncommon in the literature. Undoubtedly much of this is due to measurement error in both areas. Leaving discussion of some of the questions regarding the assessment of achievement motivation until later, it is to be noted that the criterion of course grades so widely employed is not without its own shortcomings. There is more than a little evidence that many teachers, when assigning grades, take into consideration the social acceptibility and conformity of the child's classroom behavior (Gill and Spilka, 1965; Rosenthal and Jacobson, 1968) with the more quiet and disciplined children receiving extra consideration for their acquiescent tendencies.

The overwhelming majority of studies reveal positive relationships between measures of achievement motivation and the various academic criteria of scholastic performance such as grade point average and standardized achievement tests (Barnette, 1961; Cox, 1962; Furst, 1966; Kolb, 1965; McClelland et al, 1953; Rosen, 1958; Weiss, Wertheimer and Groesbeck, 1959). Undoubtedly variations in intelligence are involved in some of these findings along with class level factors; however, there is a good reason to believe that the foregoing relationships persist when these confounding influences are controlled (Heckhausen, 1967).

We have already mentioned a number of demographic and familial factors that relate to the presence of high or low achievement motivation. Such influences generally hold for both achievement motivation and actual scholastic performance. Understanding how these are mediated via the individual child in the classroom situation is not easily demonstrable. Work on this question appears to deal with three major areas: 1) "adjustment" in general being reflected in either the ability or inability to deal with the requirements of the school; 2) anxiety as the variable leading to low achievement motivation and failure; and 3) self concept as mediating both motivation and performance. In all three areas, the findings are not wholly consistent.

Some researchers have reported that achievers appear to be better "adjusted" than underachievers on a wide variety of personality variables (Atkinson, 1958; Clark, Teevan, and Ricciuti, 1956, Snider and Linton, 1964; Taylor, 1964); however, a comparable number of workers in this area claim to have found achievers in poorer psychological shape (Lindgren and Mello, 1965; Shaw and Grubb, 1958). These results have been further confused by the fact that many studies report no meaningful relationships between achievement and personality (Demos and Spolyar, 1961; Koenigsberg, 1962; Parrish and Rethlingshafer, 1954; Winkelman, 1963). The confusing nature of this literature leads the present writer to conclude that achievement motivation in school settings cannot be explained on the basis of any general characteristics of personality.

Turning from questions of general personality, a fairly good theoretical argument can be adduced that performance is partially a function of anxiety (Taylor, 1953; Taylor, 1956; Taylor and Spence, 1952). Anxiety, however, may also be considered as a general characteristic or as one associated with specific situations. Inconsistencies have been observed in relationships between measures of performance and generalized anxiety (Grooms and Endler, 1960; Jewell, 1958; Ruebush, 1963) These may reflect either the multidimensional nature of the construct, a fact, too often ignored (McKeachie, Pollie and Spiesman, 1955), or that persons do respond differentially to anxiety by either coping successfully with it or manifesting inefficient behavior (Jewell, 1958).

Research on situational anxiety seems to have been more fruitful, though again the manner a specific person has learned to handle test or classroom stresses is crucial (Dreger and Aiken, 1957; Grooms and Endler, 1960; Milli en and Spilka, 1962). Apparently those who come to expect failure in school situations, especially where tests are involved, manifest anxiety which operates detrimentally (Feather, 1965; Sarason et al, 1960; Spilka, 1958; Weiner, 1967). The other side of this coin is also worth making explicit, namely that success experiences lead to feelings of power and competence that correlate with academic excellence and persistence in the face of frustration (Crandall, Katkovsky and Crandall, 1965; Shrable and Moulton, 1968).

Much literature suggests that the views one holds of himself is a function of such success and failure experiences (Wylie, 1961), thus it is that Brower (1967) offers a theory of underachievement based on a sequence in which test anxiety precedes actual failure which eventuates in a negative orientation toward the self. Deutsch (1966) ties this development to home-school differences where the former is economically disadvantaged. Class factors thus underly much school failure that is correlated with negative self-percepts on the part of poor children, especially the minority poor (Glazer and Creedon, 1968).

Though the concept of situational and test anxiety is intended to explain inefficient school behavior in terms of both the child and the classroom conditions under which he performs, those who carry out such work are still most likely to view the problem as an intra-psychic one on the part of the child. The tendency is look for a deficiency in the personality domain, not in the teaching-learning transaction. Just as we noted earlier, one cannot put the "blame" on the school, or on the home, neither can it be placed on the child. We must look at the totality of sociocultural and represented situational factors in order to comprehend what is occurring. Salient features of the educational situation such as success and failure experiences may be singled out for special attention, but these also need to be viewed as involving the culture-home-classroom-teacher-child transaction otherwise the notion of success-failure becomes meaningless.

The relational quality of scholastic performance and achievement motivation becomes more evident if we explicitly look for school referents as part of our transactional frame of reference. As one might expect, underachievement is not only associated with negative self-attitudes, but like rejection of the school and teachers (Wilson and Morrow, 1962). Educators, in turn, expect poor performance from those of lower class and minority extraction and may both consciously and unconsciously act to realize a "self-fulfilling prophecy" (Carter, Casavantes, and Fowler, 1969; Hickerson, 1966; Katz, 1967; Kohl, 1967; Kozol, 1967).

The role of the teacher in enhancing or retarding the performance of students cannot be underestimated (Page, 1958). Teacher-pupil relationships take place within a context of affective, evaluative and cognitive transactions (Read, 1968) and separation of these from each other is both arbitrary and unrealistic. One thus finds that the teacher with accurate perceptions of pupil needs is the one who possesses positive attitudes toward those in her charge (Gage and Suci, 1951). If the children perceive the teacher's attempts to motivate them as correct and rewarding, they tend to be accepted, but if seen as coercive, such are usually rejected (Rosenfeld and Zander, 1961). It is not uncommon to find this pattern of mutual experiences conceptualized as a classroom climate/or atmosphere, a transactional concept, which includes teacher, pupil, class, and all aspects of teaching and learning (Amidon and Hough, 1967; Flanders, 1964).

The emotional aspect of the teacher-pupil relationship invariably involves evaluation yet there is evidence that the effects of grading the pupil may be secondary to a teacher's display of personal concern and interest (Page, 1958, Waterman, Northrup and Olson, 1967). It seems clear from Flander's work (1964) that achievement is a function of active participation and involvement on the part of the child in the educational process, hence at all times, we find learning to be one aspect of a complex of emotive, intellectual, and relational components which speak to the fact that success and failure in schooling is never simply a function of the child, his home, the teacher or the school in the abstract.

The Indian, Achievement, and Achievement Motivation: Previous Research.

The reader concentrating on the relevance of the preceding discussion to the present state of the Indian child in school will have perceived many possibilities for both theory construction and research. It is therefore unfortunate that only a few studies have been carried out in this area, and these are not always pertinent. For example, Reboussin and Goldstein (1966) compared Navaho students at the Haskell Institute with white college subjects and found the former group to manifest more achievement motivation than the latter. The atypical and highly selected nature of the Indian sample is noted by these researchers.

Of greater relevance to the present work are the studies of Cameron and Storm (1965) and Kerckhoff (1959). Cameron and Storm (1966) were able to show that white middle-class children showed higher levels of achievement motivation and were able to perform on a learning task when no material reward was present better than either white working-class children or a group of Canadian Indian children. The two latter groups were equivalent on all measures. The previous cited evidence of the importance of material reward for relatively poor subjects was supported by this study.

Kerckhoff (1959) introduced the perspective of the socio-cultural status of the Chippewa into his investigation of achievement motivation of children from this tribe. Recognizing the anomic circumstances of these people, Kerckhoff was able to show increases in achievement motivation on the part of both the Indians and whites with age. There was evidence here of uniformly higher levels of achievement needs among the white subjects. When the Indians were examined with respect to Indian or white identification tendencies, those showing the latter demonstrated greater achievement motivation. Discussing these findings with respect to child-rearing practices, Kerckhoff notes that "independence training must take place in a social setting in which there are stable norms on the basis of which parents may judge (and thus reward or punish) a child's behavior. In the case of the Chippewa, anomie rather than a stable normative structure seemed to be the dominant pattern." (p. 202).

The work of Jessor and his colleagues (1968) is especially meaningful for these investigators have developed the most complete theoretical structure tying individual behavior to the sociocultural setting that has been offered to date. Specifically in the domain of achievement, they were able to show that both Indian and Spanish children perceived considerable achievement limitations on themselves, an observation that seems to bear out the antinimous relationships among anomie, alienation, actual scholastic performance and achievement motivation.

For purposes of the present study, we can see that no exhaustive attempt has been made to focus on achievement motivation within the Indian situation relative to the wide variety of possible influences discussed in the foregoing pages. The work of Jessor and his associates (1968) offers an exhaustive scheme for such an effort, but achievement per se occupied a secondary and relatively minor role in their research program, though its theoretical significance is not overlooked. It behooves us then to pull many of these leads together in this work.

Socioeconomic Considerations and Achievement Motivation: The Indian Child.

It has already been observed that achievement motivation is highly valued in the middle-class and finds strong expression within the traditional school setting. We have also seen in the work of Rosen (1959) and others (Berkowitz, 1964; Douvan, 1956, Hoffman et al, 1960) that lower-class children evidence poor scholastic performance relative to their middle-class counterparts and that this is associated with reduced needs to achieve. Still some workers have observed that lower class minority group children are exposed to American success motifs and internalize such values (Bradford, 1967; Sherif and Sherif, 1964; Jessor et al, 1968. Though low achievement motivation may emanate from a number of sources, Jessor et al (1968) hold Merton's (1957) view that economically disadvantaged groups either do not find or do not believe the legitimate avenues to success to be realistic for them.

Applying these possibilities to the Pine Ridge Indian situation, there is no doubt of the fact that the Indian population is overwhelmingly in lower-class circumstances.

Undoubtedly the school children reflect these conditions in their outlooks. Exposed to and possibly internalizing the success and achievement ideology of mainstream America, yet perceiving the low likelihood of attaining these goals, we would expect low levels of achievement motivation to be associated with feelings of alienation, especially powerlessness. These relationships should become further evident by comparing these Indian children with whites of comparable school level from the immediate vicinity. Such comparisons will, of course, also represent differences in economic class. In other words, Indian children should show less achievement motivation and higher alienation levels than white children and the relationships among these variables should be higher among the former than the latter.

Home and Child-Rearing Practices: Achievement Motivation and the Indian Child.

The economic and political foundations of Sioux society were essentially destroyed a century ago. A considerable proportion of the collective life of this people has been a search for new, viable forms of social organization that will permit survival within the limitations imposed by white society and

and the pressures of the modern world. Despite change in many areas, variations in home and family life have occurred at a much slower pace, hence the child-rearing practices described as widespread today by MacGregor (1946) Maynard and Twiss (1969) and Erikson (1963) appear almost identical with those of the past offered by Hassrick (1964) and Mirsky (1937). We read that "discipline has been much more in the form of guidance and encouragement to do the right thing than punishment for misbehavior." (MacGregor, 1946; p. 131). Hassrick (1964) writes that "Parental disciplining of small children was almost non-existent as they were catered to with great deference. (P. 275)." The entire picture of childhood is one of permissive indulgence with a stress on non-competitive behavior. Discipline depends on the development of a shame sensitivity. In Reisman's terms (Reisman, Glazer and Denney, 1950) the growth of an "other-directedness" would likely result. This is markedly in contrast to the stress placed on the internalization of behavioral standards in middle-class white society which is supposed to result in guilt if violated.

A theory of "shame" and "guilt" cultures respectively centering about the necessity of external social control or internal personal control by the individual has been proposed, and the Sioux appear to fall in the first category (Piers and Singer, 1953). Undoubtedly such a cultural division is a simplification of the culture-personality transaction. No people can be classified neatly into one or the other category, yet the descriptions offered of Sioux child-rearing practices suggest dependency on others rather than independence as a basis for personal control.

In any event, Sioux children and adults apparently possess an extremely strong sense of family solidarity which involves an attachment to the home as a referent for psychological security (MacGregor, 1946). One can hypothesize this to be an outgrowth of both the affection-based permissive-indulgent methods employed by Sioux parents, and the reluctance of elders to place demands for independence, mastery and responsibility behavior on children until after they reach the ages of eight to ten (MacGregor, 1946; Mirsky, 1937). Confounding this picture are the observations of MacGregor (1946; pp. 139, 182) that parental affection and discipline, especially in late childhood, is often inconsistent and ineffective.

If the foregoing descriptions of Sioux parent-child relations still hold, virtually the total style of child-rearing would militate against the development of an achievement orientation, especially as this is defined in general-American terms. Independence and mastery training are delayed possibly past the time when such result in high needs to achieve

(Crandall, 1963; Feld, 1959; Winterbottom, 1953; 1958). If, in addition, these motivational tendencies are, as some claim, (Crandall, Dewey and Katkovsky, 1964; Drews and Teahan, 1957; Gill and Spilka, 1962; Hoffman, Rosen and Lippett, 1958) associated with the presence of restrictive, controlling parents, the traditional Dakota home is again not likely to eventuate in strong achievement needs. The affectional and disciplinary inconsistencies cited above would also negate the growth of these motives.

One cannot discuss family, home and child-rearing practices without consideration of the sociocultural context in which they occur. The "culture of poverty" which prevails on the reservation is likely to include weak parental controls, family instability and a high incidence of broken homes, all of which are counter achievement motivation (Bronfenbrenner, 1961; Heckscher, 1967; Katz, 1967; McClelland et al, 1953; Sarason et al, 1960; Thomas, 1956; Veroff, et al, 1960). Current data from Pine Ridge indicate that all of the above hold true. Extremely high rates of divorce, separation, early widowhood and illegitimacy exist. (Maynard and Twiss, 1969). Seventy-one percent of nuclear families have only one parent; divorce rates are two to three times that of the nation as a whole while family separations, though possibly temporary, range as high as 11 percent. The illegitimacy rate is 24 percent, six times that of the white population.

The most obvious hypothesis that may be based on the foregoing discussion is that Indian children will reveal less motivation to achieve than white children. This has already been stated. These inclinations should, however, be a function of child-rearing practices. The more a child is exposed to a permissive and indulgent home atmosphere whether he be white or Indian, the weaker should be his achievement needs. One would further expect the Indian child to show more experiences of this nature than his white counterpart, hence the greater the likelihood of the Indian child having been exposed to a traditional Indian home, the lower might be his motivation to achieve. Actual scholastic performance and achievement motivation should therefore vary together as a correlate of permissive-restrictive child-rearing practices.

Because the discrepancy between the home and the school atmosphere should also relate to school success and failure, it might be hypothesized that the presence of an Indian home orientation relative to child-rearing will result in heightened feelings of alienation on the part of the Indian children plus negative attitudes toward the school situation.

Educational Achievement: The Schools and the Indian Child

The generally low level of educational achievement attained by Indian children has been repeatedly demonstrated. On the Pine Ridge reservation at the present time, only 19 percent of the population over 25 years of age has completed high school. Fifty-six percent of this group never went beyond the eighth grade (Maynard and Twiss, 1969). It is also estimated that between 60 and 70 percent of Indian secondary pupils elect to leave school before graduation (Maynard and Twiss, 1969; Thompson, 1963; Zintz, 1963).

These unhappy statistics are, however, not uniform. One of the more perplexing observations is the "crossover" phenomenon. Comparing Indian and white children on standard achievement measures, it has been noted that the former score lower up to the third or fourth grade. At this level the performance of the Indian child matches or even exceeds that of his white counterpart. About the seventh grade the achievement scores of Indian students begin a decline, crossing over below those of white children. With increasing age this gap widens (Bryde, 1965).

A number of psychological explanations have been posited for the poor performance of Indian children in school. These center about 1) the intelligence of Indians; 2) questions relating to perceptual maturity; 3) specific ability deficiencies; and 4) motivation. Undoubtedly a number of these factors make joint contributions to the problem.

The literature on intelligence usually demonstrates that Indian children score lower than whites on most standard measures yielding an I.Q. This finding is rapidly qualified by the observation that average scores for both groups are invariably within the normal range (90-110 I.Q.). In addition, "culture-fair" or "culture-free" tests, meaning those that emphasize non-language skills, usually show no Indian-white differences. Variation in intelligence therefore seems to be a function of verbal skills (Carney and Trowbridge, 1962; Gaddes, McKenzie and Barnsley, 1968; Garth and Smith, 1937; Rohrer, 1942; Snider and Coladarci, 1960; West and MacArthur, 1964). Apparently intelligence per se does not provide an adequate basis for explaining the educational performance of Indians.

Recently concern has been manifested in the perceptual maturity of Indian children. Since the usual I.Q. measures may be inappropriate for this group (Safar, 1964), the problem might then be conceptualized as one of perceptual deficiencies in handling such material. In an initial investigation, Bryde et al (1965) utilized a measure of perceptual level, but found it to be correlated with I.Q. Interestingly the latter tended to decline with age while the former increased. The meaningfulness of standard verbally-biased intelligence tests for whites and not Indians seemed to be borne out. In a further effort, Elkind (1966) evaluated a sample of Indian children at Pine Ridge and concluded that no indications were present of any retardation in perceptual development. It is unfortunate that the entire area of perceptual skills has not been explored in depth relative to the problems of poverty, Indianness and education, nevertheless at this juncture, we have no reason to expect basic deficiencies in this realm.

When educators seek to understand the performance weaknesses of children in the school, their most immediate recourse is to the content areas taught and presumably learned. Standardized achievement tests on such material have tended to become the final criteria of what the child has acquired. Comparisons of Indian and white children on the California Achievement Test and a wide variety of similar examinations are available and these rather consistently show superior achievement by white pupils in virtually all academic skills--reading, vocabulary, grammar, spelling, and arithmetic (Anderson, Collister and Ladd, 1953; Coombs, Kron, Collister and Anderson, 1958).

In seeking an explanation for the generally depressed performance of Indians, attention has been focused on the verbal-linguistic area. Since Indian children seem to perform well through the middle grades relative to white students, the marked and increasing discrepancies noted in junior and senior high school are frequently viewed as due to a growing reliance on language for abstract purposes. In other words, as long as the children are able to deal with words and concepts on a fairly concrete level, Indian-white differences are minimal. The use of language for higher level abstract conceptualizations is thought to accentuate the strengths and weaknesses of white and Indian groups in the linguistic domain. It is thus understandable that workers in Indian education often stress problems associated with bilingualism and the teaching of English as a second language (Beatty, 1945; Holmes, Benham and Stepp, 1966; 1967; McPherson, 1956).

It was only natural that attention to language implied its context thus the cultural meaning of bilingualism and the wide variety of other psychosocial problems and considerations associated with this phenomenon began to be studied. Recent overviews of this area reveal some serious deficiencies in our knowledge of what bilingualism entails for both the school, the child and his people (Macnamara, 1967a). In one framework, Lester (1968) focuses on the insulating and protective aspects of language. It serves to provide an identity based on common values and ways of thinking. Even if depreciated by outsiders it can be employed as a passive-aggressive weapon to shut out the detractors and reveal their weaknesses. Indeed there is hardly anything more intimate than one's native tongue. It can be a strength when there are few other sources of pride and identity. At the same time, when an individual, especially a child, finds himself in a strange environment controlled by a group that possesses power and the material accouterments of relative wealth and prestige, he almost inevitably must feel inadequate and inferior by comparison. And futhermore when those in dominance either subtly or overtly deprecate the language of a subject minority and infer a connection between that language and the economically and politically disadvantaged state of a people, a matrix of psychosocially depressing and debilitating circumstances results. In one form or another this must have occurred and may still be taking place for many Indian children and adults.

It has frequently been pointed out that "Language is an element of culture just as the institutions of religion and government, the social values, the kinship system or the tools that members of a society use in their daily lives" (Young, 1965: p. 33). Anything that might influence the linguistic aspects of communication such as the learning of a second language might reflect into other cultural domains. Lambert and his coworkers (1961) have found that developing proficiency in a second language relates to the growth of social and psychological orientations commensurate with the culture of the new tongue. Lambert (1967) reports additional work along these lines and suggests that there may be anomic and normlessness correlates of second language acquisition.

Much emphasis is currently being placed upon instruction of Indian and other minority children in their original language; however, to date, we do not have much research evidence of the effects of such teaching. One rather isolated study conducted in the Philippines did show that children were happier studying in their native language in school and under such conditions attended school more regularly. Clearly, we need not only similar evidence for the American Indian situation, but also considerably greater depth of a research sort to understand more fully what occurs to the children both intellectually and emotionally when this kind of school experience takes place.

As might be expected problem solving, reading speed and comprehension are poorer when bilingual children carry out such exercises in their weaker language (Macnamara, 1967b). Studying a sample of Navaho eighth graders, Stafford (1968) observed no differences between English speaking monolinguals and co-ordinate Navaho bilinguals (those who learned English only in school) in problem solving tasks. It is interesting to note that both of these groups were superior to compound bilinguals, children who learned both English and Navaho in their homes. There is some suggestion from this work that compound bilinguals may score higher than co-ordinate bilinduals on I.Q. tests; the latter are, of course, administered in English. Both bilingual groups are markedly poorer on such measures than English monolinguals; however, many sociocultural factors other than language probably enter into this distinction, one commonly found between Indians and whites.

Differences between minority children who have a language other than English and whites who only employ English have been consistently observed for virtually all school achievement and verbally based intelligence tests. Again, linguistic, cultural, class and other influences have been invoked as explanatory of these findings, but in the minds of many psychologists and educators there lingers the suspicion that such variation may really be a function of some basic inherent intellecutal characteristics. The current rather heated debate over intelligence test differences between whites and Blacks illustrates well these questions (Dreger and Miller, 1968; Hicks and Pellegrini, 1966; Pettigrew, 1964). The role of poverty in this realm has also come under detailed scrutiny (Hurley, 1968).

In order to circumvent the linguistic problems involved in intelligence testing, psychologists have for some time been concerned with the development of "culture-fair" and "culture-free" tests, and these have tended to counter notions of basic group differences in intelligence. Some of this work was mentioned earlier and it might again be noted that this research has not resolved all questions of fundamental variations in intellectual capacity across peoples. Efforts to translate intelligence tests into other languages than English have been greeted with mixed success. One of the most recent of these attempts (McCurdy, 1969) with Mexican children graphically illustrated what can occur when the minority group's language is employed. I. Q. scores jumped up to 26 points.

It should be evident that hypothesizing specific ability deficiencies as a basis for the poor academic performance of Indian children is not a simple matter. Weaknesses in English are closely associated with a wide variety of psychological and cultural factors, and it is to be doubted that additional emphasis on language learning, possibly even by starting earlier, will fully resolve present difficulties. Such will have to be part of a larger program that takes into consideration the meaning and role of the schools within the poverty-Indian context of the reservation. Still, there is considerable reason to infer that language is of great importance as a mediator of intellectual performance in the school setting.

In addition to psychological explanations of the academic performance of Indian children based on questions of intelligence, perceptual maturity and specific ability deficiencies, not a few workers have focused on motivation and personality. Much of this literature as it relates to achievement motivation has already been discussed and does not need repeating. The evidence points to low achievement motivation as a central problem, and we have seen the complex of culture, poverty, family life and associated factors that prevail on the reservation and which, it is hypothesized, adversely influences motivation to achieve in school. These forces are clarified for the Pine Ridge situation by Maynard and Twiss (1969).

A few attempts to tie educational achievement to broader personality considerations reinforce the view that the individual cannot be abstracted from the conditions of his existence in order to provide a rationalization of school performance as a personal problem. For example, Boyer and his coworkers (1967; 1968) studied Apache "learners" and "nonlearners" with Rorschach stimuli and concluded that the former show response patterns similar to those of acculturated tribe members while the nonlearners project perceptions suggesting an orientation toward less acculturated referents. Paxton (1966) focused on the self-concepts of adolescents from five southwestern Indian groups and observed negative self-evaluations relative to intellectual competence and personal-social capability. These findings are similar to those of Bryde (1965) and reflect general feelings of powerlessness and alienation.

Unfortunately research such as the above tends to remain quite independent of the school and culture-poverty setting in which Indians exist. By stressing characteristics of the pupil it also tends to imply extremely conservative remedies. The problem is thus stated as one of "adjustment" to the school and the dominant culture. Change must therefore be exclusively within the child and his people. Attention is shifted from the total situation to one aspect of it, for instead of conceptualizing educational achievement as a relational problem, one involving transaction, exchange, reciprocity, mutuality (Gergen, 1969; Nord, 1969; Pratt and Tooley, 1967), it is regarded as a one-way affair with the school authorities essentially operating on the children. Even though these views dominate, educators of Indians are increasingly aware of the need of the teachers and schools to work with rather than simply on their charges (Bryde, 1967; Miller, 1965; Zintz, 1963). At present the entire American educational establishment is in turmoil regarding its philosophies of teaching and learning and the methods which represent these formulations, and nowhere is this self-scrutiny more thoroughgoing than among educators of Indiana.

Conceptualizing the problem in transactional terms, it is essential to call attention to the fact that we are dealing with a system of relational patterns, teacher-pupil, school-community, parent-child, and, of course, associations among these pairings. A few words regarding what we know and theorize would be appropriate at this juncture to support the thesis that the present work is problem-oriented as opposed to being a strictly psychological venture.

Teacher-Pupil Relationships: The Indian School Setting

It would be foolish to attempt an overview of the massive literature on teacher-pupil relationships. This has been done elsewhere (Biddle and Ellena, 1964; Gage, 1963; Glidewell, Kantor, Smith, and Stringer, 1966). Relative to the conditions found in schools with Indian children, the majority of relevant research centers about the value systems and expectations of teachers. These are not only a function of their class position but also of their training and exposure to philosophies of education that obtain at different times within our culture and schools of education (Gardner, 1969). Teachers value highly obedience and strong self-control on the part of children in the classroom. Acquiescent and enthusiastic verbal expression by pupils gains similar approbation (Gilbert, 1969; Glidewell et al, 1966). The teacher's power to emotionally stimulate or impede the growth of those in her care by the subtle use of praise and acceptance cannot be underestimated (Glidewell, et al, 1966; Rosenthal and Jacobson, 1968). Class differences between teachers and pupils have also been extensively studied and may create much classroom strain and misunderstanding. Ethnic variation can further compound difficulties of communication and relationship.

Indian education has for some time been a source of concern to all who have attempted to comprehend the plight of this people. Education personnel from the Bureau of Indian Affairs have continually demonstrated great anxiety about their roles and accomplishments, and are quite aware of serious shortcomings in their programs (Beatty, 1956; Orata, 1953; Thompson, 1964). Unfortunately translating this disquietude into concrete action does not occur easily because of vested interests, educational philosophy and a host of related historical and contemporary value conflicts.

With respect to the Pine Ridge situation, Eriksen (1963) sees the difficulty as...

> ...one of culture contact between a group of employees representative of the middle-class values of a free-enterprise system on the one hand, and on the other, the remnants of a tribe which, wherever it leaves the shadow of government sustenance, must find itself among the underprivileged of that system. (p. 154).

Wax and his associates (1964) further define the problems of Indian education "as those of 'general education' in a society which requires the schools to be ethnic melting pots and ladders of social mobility." (p. 115).

An overriding theme throughout this literature is that of value and culture conflict in which the school is a battleground. Wax et al (1964) go into great detail illustrating the wrongs teachers visit upon children in their classrooms. The ease with which these are elaborated is not paralleled by any discussion of "a _few_ teachers who develop fine classrooms and teach their pupils a great deal" (p. 75) (underlining added by present writer). Backhand compliments of this sort are only designed to emphasize, in the eyes of these workers, the undesirable aspects of schooling on the Pine Ridge reservation. Yet despite the extensive anecdotal descriptions offered of teacher inadequacies, the reader is told a number of times how much parents and pupils like and value the schools and teachers. It is of equivalent importance to know what is done by "good" teachers that is constructive and effective. MacGregor (1946) has contended that "teachers are the most important adults as guides and disciplinarians in the lives of the boys...(and)... teachers appear to have more influence on girls than do their fathers or age mates." (p. 201). Considering the rather widely advertised, critical views of Indian education and teachers of Indians, it is difficult to understand the generally positive orientation of Indian children and parents toward teachers and schools on the reservation and the significance of the latter in the lives of Indian pupils (Aurbach, 1967; Rowan, 1968; Senate Hearings, 1967; Wax, et al, 1964).

Within any educational system, there are teachers who can be informally designated as "good" or "bad"; however, it should be understood that criteria of teaching excellence possess an ethereal quality. We can point to specific practices that will engender much consensus about their desirability but the student of this area will have to admit that we have little substantive evidence to suggest concrete operational standards of what constitutes good teaching in general, and essentially none with regard to schools that minister to Indian children. To remedy this situation, studies of classroom climate and atmosphere need to be carried out and one such investigation is currently in process. In addition, the attitudes and outlooks of parents, children and Indian educators must be explored in depth so that relationships among these groups can be spelled out in detail. Such is, in part, one of the purposes of the present research. In other words, one has to determine the dimensions of attitudes toward the schools and their connections to a wide variety of theoretically associated psychosocial and demographic factors. Furthermore, the specific child-teacher relationship needs to be evaluated and this is also being initially approached here.

In the last analysis the affiliation of teacher and pupil stands at the core of a transactional complex involving the school, the Indian-poverty culture and white society. What occurs to the child in the classroom will have to be understood as part of this pattern.

Summary: A Research Perspective

In the preceding pages, an attempt was made to portray the conditions and circumstances that affect the Indian child in school. We have seen that these are part of an historical-cultural process involving value-conflicts and the destructive consequences of poverty. Explanation cannot be confined to a psychological or individual level of analysis, but must refer to group and sociocultural strata. Nevertheless, the Indian child is at the center of this matrix of influences, thus it is essential that we comprehend what is happening to him. His state of mind and outlooks relative to education must be approached as part of a larger psychosocial dynamic, hence the concepts of anomie and alienation have been introduced. These are developed elsewhere in much greater detail for similar purposes than is possible at the present time (Jessor et al, 1968), yet the basic rudiments of such a theoretical overview are offered here. In sum, we observe the economic and political disruption of the Indian sociocultural system and the development of a disorganized resultant that combines features of the Indian pattern with a "culture of poverty" (anomie). The collective-individual response is one of alienation, and the components of this motivation-integrative-and reaction complex are central to an understanding of the Indian child in the school setting. Our focus in this study is to treat the educational performance of the Indian pupil in motivational terms showing how these relate to the school and the home while concomitantly picturing the plight of an entire people. The specific hypothetical and operational specifications for this effort now remain to be spelled out.

Chapter III: Research Design

Theoretical Framework

The preceding chapter posited three major sources of data for this study: 1) the school, 2) the child, and 3) his home and family. The school was able to provide information on grade level, performance on standardized achievement and intelligence tests, whether the child stayed in school or not, and degree of Indian "blood". The last was checked against census and probate records for final determination. Four main classes of variables were examined relative to the subjects. These dealt with the measurement of alienation, achievement motivation and aspirations, attitudes toward school plus an experimental assessment of child-teacher and child-parent relationships under different conditions, and finally the child's perception of the views and methods employed to rear him in the home by his parents or parent-surrogates. Lastly, for a selected sample of parents, data were gathered on socioeconomic status, attitudes toward education in general, local schools in particular, the government, child rearing and the concepts of alienation and achievement motivation. Degree of Indian blood was also obtained from BIA records.

In order to provide for some generalization of many of these observations to education beyond the confines of the reservation, and also to understand the comparative significance of the above factors, a sample of white students was selected from towns immediately adjacent to the Pine Ridge reservation. Indian-white comparisons on the majority of these measures were thus possible; however, cultural and socio-economic differences between these groups precludes any suggestion that the whites serve as a "control" group for the Indians. At best they offer a basis for comparison and the construction of cross-group measures.

A number of hypotheses were offered in Chapter II; however, these bear repeating in a more definitive manner and also within the context of related theorized associations. They will also be organized with reference to the three sources of data and the four primary classes of variables cited above. Since it was theorized earlier that these would be multidimensional in nature, it would, of course, be desirable to specify all formulations in such terms. Because this would require much post hoc thinking that would be scientifically suspect, reference will be made to the general domain of a variable in question suggesting relationships that collectively subsume the components of that realm. This will become clearer as the hypothetical structures are elaborated. Relationships posited for Indian youth are theorized to hold for whites and are evaluated where it was possible to obtain comparable data.

Child-School Relationships

I. Alienation (and its components)

  A. Feelings of alienation will increase as achievement and intelligence reduce.

  B. Alienation will be significantly greater among those who fail to continue in school (non-continuers) than in children who remain in attendance (continuers).[1]

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[1] In Chapter II, on page 38, footnote four suggested the inadequacy of the term dropout. Though most widely accepted and employed in educational circles, it is felt that this language denies the transactional nature of school continuation or non-continuation. In addition, a protective function is implied in which dropout is

C. Alienation will relate positively to degree of Indianness (blood).

  1. As degree of Indianness increases, indices of educational achievement and intelligence will decline.
  2. Degree of Indianness will also relate positively to tendencies not to continue in school.

D. Alienation will reduce with increasing school grade.

E. Whites will generally show lower levels of alienation than Indians.

II. Achievement Motivation (and its components)

A. As evidence of achievement motivation increases, measured school achievement and intelligence will also rise.

B. Achievement motivation will be lower among non-continuers than continuers.

C. Achievement motivation will be inversely related to degree of Indianness.

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exclusively an action of an individual independent of the school and his life circumstances. Verbal labels such as "pushout" or "kickout" (Wax, 1967) are equally unfortunate and appear as reactions to the dropout concept. The terms, continuer and non-continuer, are offered as weak substitutes primarily to call attention to the above shortcomings. Despite this semantic exercise, the writer recognizes that the alternative verbalism, non-continuer, may be taken as a euphemism for dropout. Such is not intended and any more happy surrogate that performs the desired functions will be gladly utilized.

D. Achievement motivation will be positively correlated with occupational aspiration.

E. Achievement motivation will be negatively associated with alienation.

F. Achievement motivation will increase with school grade.

G. Whites will show higher levels of achievement motivation than their Indian counterparts.

III. Attitude toward School (and its components)

A. Attitudes toward school will become more negative as achievement and intelligence decline.

B. Non-continuers will demonstrate more negative attitudes toward school than continuers.

C. Negativity of attitudes toward school will increase with degree of Indianness.

D. Negativity of attitudes toward school will be associated with Alienation.

E. Favorable attitudes toward school will relate positively to Achievement Motivation.

F. Favorable attitudes toward school will increase with grade.

G. White school children will reveal more positive attitudes toward school than their Indian counterparts.

H. Specifically with respect to the psychological distance one holds himself from significant figures within his personal world, Indian children will hold teachers at greater distances than they do their parents.

I. The greater the distance at which a teacher is held by a child, the more alienated he will be.

J. Psychological distance from a teacher will reduce with increasing achievement motivation.

K. The more negative a child's attitudes toward the school, the greater will be the psychological distance at which he will hold a teacher.

IV. Child-Rearing

A. The more indications present that a child (from his own determination) has been exposed to what have been earlier described as permissive-indulgent child-rearing experiences (traditional Indian), the lower will be his measured achievement and intelligence.

B. Non-continuers in school will evidence greater exposure to traditional Indian child-rearing experiences than continuers.

C. Traditional Indian child-rearing practices will relate positively to signs of Alienation.

D. Traditional Indian child-rearing practices are associated with low achievement motivation.

E. Traditional Indian child-rearing practices will correlate with negative attitudes toward the school.

F. Traditional Indian child-rearing practices will be a positive function of degree of Indianness.

G. White youth will perceive themselves as coming from more restrictive and controlling homes than their grade-level Indian opposites.

Child-Home Relationships (These were established for Indians only).

A. As parental attitudes toward education in general, local schools in particular and the government become more negative, the child should demonstrate high alienation, low achievement motivation and negative attitudes toward the school.

B. Parental alienation should correlate positively with that of the child.

C. Parental achievement motivation should correlate positively with that of the child.

D. As home and parental socioeconomic status decline, the child's feelings of alienation should increase, achievement motivation will reduce, and negative attitudes toward the school will also become more prominent.

E. Socioeconomic status will be an inverse function of degree of Indianness.

F. Parental Indianness should be associated with negativity of parental attitudes toward education, local schools, the government, high alienation, and low achievement motivation.

G. Generally, attitudes of Indian parents toward education and and the schools will be positive.

H. Degree of parental Indianness will relate to the presence of traditional Indian child-rearing practices.

  1. Parent and child views of child-rearing practices should vary together.

Home-School Relationships. (These were established for Indians only).

A. As parental attitudes become more negative toward education, local schools, and the government, the measured achievement and intelligence of their children should decline.

B. As parental alienation increases, the achievement and intelligence of their children should reduce.

C. As parental achievement motivation increases, the achievement and intelligence of their children will correspondingly rise.

D. Home socioeconomic status will be positively associated with school achievement and child intelligence.

E. Degree of parental Indianness will be negatively affiliated with measured school achievement and child intelligence.

F. Continuation in school will vary negatively as a function of parental Indianness and positively with home socioeconomic status.

Implied above are many unstated relationships some of which will be discussed in the following pages. Certain points should be made about the manner in which the hypotheses were offered. First, they are not presented in the statistical form of a null statement since, it is felt that such would not make for clarity, and the null style can be implicitly acknowledged. Second, the reader should not construe the direction of any hypothesis to signify bias on the part of the writer. The desire was simply to offer these propositions in positive terms. The procedure used for discussing the findings relative to any hypothesis will be to present it again, state a brief rationale and then examine the relevant data. The reader will also be aware of another variation in the way the hypotheses were given. Early statements were simplified while later ones tended to be composites. Definitions given at the beginning were assumed to hold later on. The tendency was to build on those given first and thus minimize repetition. The variable of sex was not discussed since it was felt that the observations made would hold for both sexes; however, these data are available and will be mentioned. Considerations of grade level, where not cited, will be similarly treated.

Sample

Only students in the 7th through the 12th grades participated in this study. These came from 9 schools on the Pine

Ridge Reservation and 4 from immediately surrounding communities. Seven Federal, five public and one Catholic mission school cooperated in this work. All white subjects (Ss) in Indian schools (N = 41) and all Indian Ss in what might be called white schools (N-= 34) were removed from the evaluated school samples. The designation, Indian schools and white schools will be employed throughout this paper to indicate those having in their student body over 90 percent of one of these groups. All 9 schools on the reservation are thus defined as Indian schools and the 4 from nearby towns are distinguished as white schools. Because of great variation in the number of pupils in the different grades within each of the the above categories plus indications that extremely fine breakdowns are not meaningful, only two grade classifications are used in analyzing the data. Seventh and eighth grades are thus combined and separated from ninth through twelfth grades which are also treated as one group. Table 1 shows the numbers of students listed on school roles within these classifications plus those tested. In addition to eliminating whites and Indians from schools in which they did not constitute the overwhelming majority of students, all subjects (Ss) who evidently did not understand the test materials or who, it was clear, attempted to "fake" the measures were also removed from the samples. Another 49 Indian and 20 white Ss were thus deleted. The relative completeness of the testing is shown by the fact that 843 seventh through twelfth grade pupils or 89 percent of those in the Indian schools were assessed while 909 or 95 percent of the students listed in the white schools were evaluated. Relatively complete data were finally available for 753 Indian and 855 white pupils; however, sample size for different measures is quite variable as will be evident from the tabular data. It was still possible to obtain information of considerable completeness for over 700 Ss within each group on the instruments employed by the writer. Much I.Q. data were not considered usable because it was not obtained less than two years prior to the testing undertaken in this investigation. All achievement data had to be collected within one year of the present study for a subject to be included. In actuality well over 90 percent of the achievement information was gathered during the same school year the writer conducted his evaluations. The equivalence of sex representation is illustrated by the presence of 384 Indian females, 369 Indian males, 428 white females and 427 white males in the sample.

Table 1

Nature of Subject Source and Sample[1]

Grades

Schools	7 - 8		9 - 12		Totals	
	Listed	Tested	Listed	Tested	Listed	Tested
Indian	507	360(71)[2]	441	393(89)	948	753(79)
White	240	204(85)	718	651(90)	958	855(89)

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[1] Not included uner tested for all grades are 41 white pupils who were in Indian schools, 34 Indian pupils in white schools, 49 Indians who provided incomplete test data and 20 whites who performed similarly. If all Ss are considered 88 percent of those listed in Indian schools and 95 percent of those in white schools were tests.

[2] Percentage of those listed in each category.

After the testing of the Indian children, an effort was undertaken to evaluate the role of the home in the educational performance and orientation of the children. The intention was to form four groups of students, the parents of whom would be interviewed on variables similar to those on which their children were being assessed. These groups were to be designated high and low alienated achievers and underachievers, and an essentially equal number in each category would come from each grade from the seventh through the twelfth. To accomplish this goal, IQ, achievement, and Theoretical

Alienation scores were converted to both percentiles and standard scores. The three distributions were found to be in almost perfect correspondence with the normal or Gaussian curve. All children whose IQ's fell between the 30th and 70th percentiles were then formed into four groups: 1) Those with both school achievement indices and alienation scores below the 50th percentile; 2) Achievement above the 50th percentile and alienation below the same cutoff; 3) achievement below the 50th percentile and alienation above this point; and 4) achievement and alienation above the 50th percentile. Once these groups were constituted, the mothers or mother-surrogates of the children were interviewed by three local Indian women. Though 210 Ss were approached, usable data was gained from 206. It was extremely difficult to obtain Ss for Group 2. The sample sizes were: Group 1, 59, Group 2, 39; Group 3, 57, and Group 4, 51.

Measuring Instruments

Intelligence

Three different intelligence tests were available for use. In the Indian schools, the Kuhlmann-Finch Tests, (Buros, 1959) were apparently replaced by the Lorge-Thorndike Intelligence Tests (Buros, 1959), thus many children had data from both of these instruments in their files. Despite the change from one test to another in the Federal schools, the mission and public schools on the reservation continued to employ the Kuhlmann-Finch measures. The white schools utilized a variety of instruments. Because of the extensiveness of some of these data, for selected schools it was possible to obtain scores on the Kuhlmann-Finch, the Lorge-Thorndike and the Henmon-Nelson examinations (Buros, 1965). In some instances, the presence of multiple measures of intelligence permits inferences regarding the meaningfulness of such devices not only for Indians, but in general. A brief description of the nature of these tests will contribute to an understanding of later remarks about them.

The Henmon-Nelson Tests of Mental Ability (Buros, 1965; Remmers and Gage, 1955).

First constructed in 1931, these tests are designed to assess intelligence from the 3rd grade through college. Revisions were periodically undertaken through 1961. The test yields an I.Q. which is largely based on the kind of verbal and numerical content one is likely to acquire in school. There is a general mixing together of the linguistic and quantitative material with some items constructed to measure spatial ability. A strength of the instrument is the ease with which it can be administered and scored. Instructions for both activities are extremely simple. Test reliability is quite high (.72-.94) and the usual evidence that the test predicts school performance with fair accuracy is readily available. One is likely to characterize these measures as well constructed, probably unduly weighted with content the pupil in the average American school is likely to be exposed to. The simplicity of administration and scoring may be a prime reason it was used by one of the schools in the present study for no indications were provided that it possessed psychometric or educational characteristics that mark it as superior to other measures of intelligence in use in nearby schools.

The _Kuhlmann_-_Finch_ _Tests_ (Buros, 1959).

Designed to replace the earlier Kuhlmann-Anderson tests, the Kuhlmann-Finch examinations have proven their usefulness in identifying intelligence variations in a wide variety of different groups. Reviewers are in general agreement that the tests are well constructed and cover a suitable range (Grades 1 through 12). There are indications that the language content of the measure increases with grade-level, hence its inappropriateness with older children from verbally deficient settings. Again, it may have been used because it is easy to administer and score and appears to have been widely employed in school systems for many years. Of note are data that the test seems to be relatively independent of cultural influences, but further evaluation along these lines is merited.

The Lorge-Thorndike Intelligence Tests (Buros, 1959).

It is generally agreed that these instruments are among the best ever constructed. A solid theoretical framework has been rigorously operationalized, and this eventuates in the assessment of intelligence in verbal and nonverbal terms. The test thus provides for separate verbal and nonverbal I.Q.s which may be averaged to produce a composite or total index of intelligence. Apparently this instrument has been successfully employed with children from kindergarten through high-school, and the results evaluated with regard to many different forms of psychometric validity. The original standardization sample was over 136,000 children in 44 communities in 22 different states and extensive analysis of the test data was carried out relative to many sociological characteristics of the communities studied. These findings plus those in the present research suggest that the Lorge-Thorndike tests may be among the very best available for investigating the abilities of Indian children, if such is necessary.

Abbreviations. Rather than write out test names as these devices are reported, the abbreviations employed for the measures of intelligence are: Henmon Nelson, HN-IQ; Kuhlmann-Finch, KF-IQ; Lorge-Thorndike Nonverbal L-T-NVIQ, Verbal, L-T VIQ, Total, L-T-TIQ.

Achievement Tests

California Achievement Tests (Buros, 1965; Tiegs and Clark, 1963).

These are extremely popular examinations that, in one form or another, have been in widespread use for about 35 years. They are designed to evaluate three major areas; reading arithmetic and language including spelling. Each is subdivided into six different examinations that result in two subtotals for each topic and for these six subspecialties plus the three areas and a total over all tests, grade placement and age norms are available. For the present study, attention was directed at total achievement. Because of the potential distortion of original data introduced by scaling, three performance indices were employed: the raw score total over all tests, the grade-placement equivalent for this score and its corresponding percentile. Though the California tests cover the entire elementary and secondary school range, the Indian schools in the present sample used these devices only below the ninth grade, and they were not employed by the white schools. In general, these appear to be well constructed, quite comprehensive and reliable instruments.

The Iowa Test of Basic Skills (Buros, 1965)

In use in only a few schools in this study, these appear to be rather standard achievement tests for use below the ninth grade. Though 15 subtest scores are available, only the total was employed as a measure of general achievement level. As with all of the other achievement tests, these are heavily weighted with verbal material, and research is lacking about the appropriateness of such measures with Indian children. The Iowa Tests of Educational Development (Buros, 1965; Science Research Associates, 1963).

These tests are among the most widely utilized of all such instruments in secondary schools. Nine topics contribute to the assessment of achievement in four main areas: social studies, natural sciences, general mathematics, and English. The composite scores correlate very high with other indications of highschool performance and also relate well with later grade-point averages, class rank, etc. for both highschool and college. The tests are extremely reliable and appear to be very well constructed, and the authors have gone to great pains to make the scores of the different versions of these instruments comparable. The tests were employed in all of the Indian schools and in the majority of the white schools. Two scores were used in this study: a standard scale score and its percentile equivalent.

The Metropolitan Achievement Tests (Buros, 1965).

One of the white schools in the sample employed these examinations, hence they were included as supportive information for that school relative to the other similar tests which were available. Again a total score was utilized to gain a measure of overall achievement.

These tests are available for all elementary and secondary grade levels, and have undergone many revisions since 1931 when they first appeared. The instrument seems well regarded though reviewers (Buros, 1965) point out that there is an undue emphasis on factual knowledge that is tightly tied to the general American curriculum, hence achievement-in-general may not be well assessed. There is also some suggestion that the Iowa Tests of Educational Development are more suitable for prognosticating changes in instruction and curriculum. The Metropolitan tests appear to be well standardized, manifest good reliability and, as essentially traditional achievement measures with a long history, may be considered fairly useful devices.

Abbreviations. The foregoing tests are abbreviated in the following pages thus: California Achievement Tests, CAT, grade-placement, GP, Percentile, %-ile; Iowa Tests of Basic Skills, ITBS; Iowa Tests of Educational Development, ITED,

Table 2

Correlations among all Intelligence and Achievement

Measures for Indians and Whites[1]

		1	2	3	4	5	6	7	8	9
	Indians									
1	L-T-NV-IQ		613	921	654	580	580	526	436	451
2	" V-IQ	394		872	756	676	658	670	736	726
3	" T-IQ	394	394		782	693	684	655	644	644
4	KF-IQ	63	65	61		803	467	502	482	476
5	CAT-Raw Sc.	237	237	237	9		970	840	--[2]	--
6	" -GP	237	237	237	62	279		837	--	--
7	" -%-ile	237	237	237	62	279	332		--	--
8	ITED-SS	146	152	144	235	--	--	--		855
9	" -%-ile	146	152	144	235	--	--	--	349	
	Whites									
1	L-T-NV-IQ		570	855	--	--	532	564	--	
2	" V-IQ	133		900	--	--	804	823	--	
3	T-IQ	132	132		--	582	764	773	566	
4	KF-IQ	--	--	--		--	870	878	--	
5	HN-IQ	--	--	108	--		605	634	585	
6	ITED-SS	117	117	297	74	130		893	499	
7	" -%-ile	117	117	297	74	130	514		485	
8	MAT	--	--	142	--	84	33	33		

---

[1] Correlations are above the diagonal; sample size below diagonal. Decimal points omitted. (This format will be used on all similar tables).

[2] (-) designates no common subjects, hence no correlation.

Standard Scale Score, SS, Percentile, %-ile; Metropolitan Achievement Tests, MAT. See Table 2 for intercorrelations.

Measures of Social Status as Occupational Aspiration.

In order to gain some idea of the future outlook of the children for the period after their schooling, they were asked, "When I go out and work for a living, I'd like to be a _______." The occupations listed were then considered to be an indication of their perceived job chances as a function of the situation in which they find themselves. This would include a personal assessment of educational performance, achievement motivation, awareness of job possibilities, hopelessness, etc. In other words, occupational aspiration is here treated as a complex measure of desired social status which, it is felt, might reflect much of the circumstances surrounding the children and their response to such conditions. The occupations offered by the children were then categorized according to four schemes of social status. These vary in broadness of categories and reflect differing styles of subjective-objective measure construction. The instruments employed are:

The Alba M. Edwards Social-Economic Grouping of Occupations (Miller, 1964).

This is the most widely employed scale of occupational grouping in the United States. For almost 40 years, it has been extensively used by Federal agencies and also in research.

The instrument classifies occupations into six major categories. The higher the rating of the desired occupation, the lower the score; these range from one to six. All evidence points to a reliable and valid index with the main criticism being the grossness of the occupational categories.

Revised Occupational Rating Scale (Warner, Meeker and Eell's Index of Status Characteristics) (Bonjean, Hill and McLemore, 1967; Miller, 1964; Warner, Meeker and Eells, 1960).

The Warner Index of occupational characteristics is one of the most popular and yet rigorously developed instruments designed to evaluate occupational status. The seven category breakdown utilized in this study is based on a considerable refinement of the classification levels over those of Edwards'. In addition, the reliability and validity of this measure has been repeatedly demonstrated in many investigations. Here the scores range from 1 through 7 with a low tally indicating high occupational status.

The Hatt-North Occupational Prestige Ratings (Bonjean, Hill and McLemore, 1967; Miller, 1964).

Utilizing a national sample, Hatt and North constructed their extremely refined prestige rating system for 90 occupations. They were also able to scale occupational families into eight categories by the Guttman method. This provided one means of scoring the occupational aspirations of the children in the present investigation. A low rating indicates the high prestige occupations while a high rating represents the lower job rankings. The unidimensionality of this breakdown has been questioned (Miller, 1964), and this writer also has his doubts.

In addition to the above classification, Hatt and North attempted to develop a 100 point system for scaling occupations. The actual range was from 33 for the job with the least prestige to 96 for that most highly regarded. This scheme was also employed in the present study.

Research with the Hatt-North ratings demonstrates high reliability and good correspondence with similar procedures. The authors have apparently produced a rather sophisticated method for assessing occupational prestige.

Abbreviations. In the succeeding discussion, the Edwards Social-Economic Grouping of Occupations will be designated EOG (Edwards Occupational Grouping); the Warner Occupational Rating Scale will be denoted WORS, while the Hatt North instruments are to be abbreviated H-N I for the 8 category system, and H-N II for the 100 point scale. See Table 3.

Children's Attitude and Orientation Measures.

In Chapter II, four main classes of variables were singled out as possible factors relating to the performance of the

Table 3

Correlations among Occupational-Aspiration Measures for Indians and Whites

Indians

	EOG	WORS	H-NI	H-NII
EOG		893	823	-776
WORS	410		737	-850
H-NI	409	412		-677
H-NII	409	411	411	

Whites

EOG		819	844	-826
WORS	574		775	-878
H-NI	574	575		-719
H-NII	574	575	575	

children in school. These were generically labeled; Alienation, Achievement Motivation, Attitude Toward School, and Child-Rearing Experiences. In the writer's view, these attitude-orientation measures were to constitute the central focus of this study.

Considerable difficulty attends the administration and interpretation of psychological measures to persons who were not involved in the standardization of such instruments. The likelihood of Indians contributing data employed in the construction of the above tests of intelligence, achievement and occupational status is very slight indeed. The applicability of these devices to Indian samples is therefore in doubt; still it may be possible to obtain some suggestive and meaningful information from the use of these examinations. The general tendency among researchers has been to ignore questions of the validity of psychological tests with such groups as Indians unless, of course, favorite hypotheses fail to be confirmed. It is difficult to say which kinds of evaluation instruments contain greater error when given to subjects different from those in the standardization samples. The political-social implications of inferences about achievement and intelligence may be extremely serious. The same holds true if one employs measures conceptualized in terms of "mental health" and "adjustment". These considerations cannot be lightly dismissed.

Though, the tests discussed above are most appropriate for samples of "average Americans", those to be treated now were designed to maximally picture the frame of mind of the subjects in this study in their own terms. Undoubtedly there are limitations on the extent to which this can be done via the methods employed here--cultural, linguistic, economic-educational, etc., nevertheless the intent was not to impose psychometric instruments constructed and validated elsewhere and then interpret the findings in established ways according to the appropriate test manuals. It was desired to develop measures that might optimally be relevant to both Indian and white children within the setting of this study. Some idea of the generality of the concepts assessed could then be gained. Since these devices were constructed, a few other researchers have employed some of them and the initial findings are supportive with groups and circumstances different from those in the present work (Miller, 1968; Read, 1968).

Operationally the task was to utilize objective items to assess the domains of Alienation, Achievement Motivation, Attitude toward School, and Child-Rearing experiences. The questions would have to be appropriate for children in the 7th through the 12th grades who might also be quite deficient in language skills and reading. In order to accomplish this end, large numbers of items that had been used elsewhere to measure the same variables were collected and examined. Prior to the present study, the writer had been involved in the assessment of the outlooks of low educational level minority subjects for a Job Opportunity Center, a War-On-Poverty Program. This sample was composed of about 500 Blacks, Mexican-Americans and poor whites. Items were thus available from this work. From these sources, some 250 questions were assembled, and orally administered to 10 seventh grade Indian children on the reservation. The children had been designated by four teachers in four different schools as among their slowest and poorest educationally. By going over the questions individually with each child and teacher, 14 items were initially dropped and a large number modified to make them readable and intelligible to the children. The first version of the total test with 236 questions was administered in order to provide data for more sophisticated analyses. The results were subjected to factor and item analyses. Questions missed by any sizeable number of children (usually seventh graders) were eliminated. If a subject was unable to respond to 10 or more of the questions out of the total 236, his record was not considered, though responses to individual items were often included in the factor and item studies. The final test form consisted of 196 items and is presented in Appendix A. Appendix B indicates the specific items designating the various factor scales, and Appendix C presents the total rotated factor-loading matrices for all items.

The method of scale construction was as follows. All items for all subjects, Indian and white, were punched on IBM cards. Those which had been earlier designated for each of the domains to be evaluated (e.g. Alienation, Achievement Motivation, etc.) were then analyzed utilizing the Burroughs 5500 computer at the University of Denver. To illustrate, the 116 questions purporting to assess Alienation were factored by means of the Method of Principal Components and the resulting factors rotated orthogonally to approximate the criterion of simple structure via the Varimax procedure of Kaiser (Harman, 1967; Thurstone, 1947). The limit for designating the number of factors to be extracted was the latent root one criterion (eigenvalue equal to or greater than unity) (Guttman, 1954). A factor loading of .30 was also employed as a cutoff value for regarding an item as meaningfully contributing to the definition of a factor. Considering the size of the samples analyzed, if one were to consider a factor loading simply as a correlation of an item with a factor, using .30 as suggesting significance is extremely conservative, thus examination of items down to .20 also took place. Lack of a distribution function which would permit designation of significance levels for factor loadings necessitated this procedure, since a "search for meaning" of the factors was the final goal.

Among the many problems confronted by those who employ factor analysis is that of determining the number of vectors to extract from any correlation matrix. The latent-root-one criterion noted above is widely accepted as appropriate. This rule may be expected to result in the extraction of more than the actual number of "real" factors, thus the task is to separate these from what may be chance produced. Horn (1965a) makes such a distinction by the analysis of roots from random matrices of various orders. Sundland (1967) has further operationalized this technique by providing extensive tables of root magnitudes. Applying this procedure here usually reduced the number of factors for consideration in each analysis by one-third to one-half. Since this is a relatively new strategy, its use was tempered by examination of factors past this criterion in order to determine if meaningful factors might be lost. It is the writer's opinion that such caution is essential as the Horn-Sundland approach may be too severe in establishing a cutoff.

The rotational criterion should also be briefly noted. The Varimax procedure attempts to rotate the extracted vectors in such a way that orthogonality is imposed on the factor structure. An attempt was thus made to obtain relatively independent dimensions for each of the variable-complexes being studied. This approach may be regarded as considerably more conservative than an oblique rotation.

A use of factor dimensions necessitates the computation of factor scores. A number of such procedures are available and research on the comparability of these methods suggests the relevance of many aspects of the data (e.g. magnitude of intercorrelation among factors) (Wackwitz, 1967). Some of this work implies that differences among the various techniques may not be of real significance (Horn, 1965b; Horn and Miller 1966; Wackwitz, 1967). It is therefore felt that the rough estimation procedure used here for estimation of factor scores is defensible. This involved the simple algebraic summation of item scores comprising a factor.

Because of the large samples of Indian and white youth who participated in the present work, it was possible to attempt a cross-validation of the extracted factors. To accomplish this end, the subjects within each school and each grade were randomly split into two groups. The items for each variable were then factored for each of the subgroups of whites and

and Indians. The resulting factor contents were then compared so that repeated items could be selected for the final dimensional scales. In addition to carrying out this procedure for the Indian and white subgroups, the total Indian and white groups were also separately analyzed. This permitted a further check on the meaningfulness of items for specific group scales, plus, of course, the possibility of constructing common scales to cover both Indians and whites.

Three factorings of the items for the Indians, and three for the whites were thus undertaken. This raises questions about matching factors. Cattell (1966) summarizes these routines. In a previous study (Spilka, Armatas, and Nussbaum, 1964), the writer developed a factor-congruence index which appears comparable to many of the more sophisticated procedures. It has been described as follows:

> Considering each factor as a set of concepts, the factors from each of the...samples can be roughly compared by an index which consists of the ratio of twice the intersection of the two best matching factors to the sum of the intersection and the union of the two selected factors. The range of the index is from .00 to 1.00 (Spilka, Armatas, and Nussbaum, 1964, p. 35).

Though orthogonality may have been the criterion for factor rotation, departures from factor independence are to be expected for the usual reasons of non-representation of an entire factor, etc. Additionally, variations in item loading across the four subgroups, and item selection premised upon

Table 4

Reliabilities of Attitude-Orientation Scales for Indians and Whites[1]

Alienation	Items	Indians	Whites	Total	Attitude Toward School	Items	Indians	Whites	Total
I	17	.781	.836	.809	I	7	.732	.767	.750
II	16	.617	.674	.646	II	7	.843	.886	.855
III	8	.703	.701	.702	III	5	.808	.839	.824
IV	5	.825	.776	.800	IV	4	.544	.815	.680
V	7	.781	.838	.810	Theoretical	23	.712	.729	.720
VI	6	.709	.760	.735					
VII	4	.334	.368	.351					
Theoretical	87	.889	.881	.885					
Achievement Motivation					Child Rearing				
I	7	.807	.788	.798	I	10	.816	.761	.797
II	6	.772	.674	.723	II	6	.766	.619	.692
III	4	.581	.671	.626	III	2	.511	.560	.523
IV	4	.633	.567	.600	IV	5	.647	.502	.574
Theoretical	38	.812	.778	.803	V	6	.859	.824	.842
					VI	12	.758	.800	.779

---

[1] These data are based on analyses of 263 Indians and 166 white Ss selected from the total sample.

the most meaningful item patterns would also attenuate orthogonality.

Factor scale reliabilities have been computed utilizing the analysis of variance procedures discussed by Winer (1962). These are presented for each group and for all Ss in Table 2.

Given the above considerations, examination of the factor matrices for the various groups and items suggested that it was valid to construct scales for the different variables over both the Indian and white groups. In other words group factor patterns were quite similar. The scales are as follows and may be viewed in detail in Appendix B.

Alienation Scales

Factor I: Powerlessness: Seventeen items comprise this scale. On all four subgroup factorings, these were the first extracted. This dimension appears to stress the complexity of problems, the profusion and confusion of ideas that make the world seem overwhelming and occasion feelings of helplessness and futility. One cannot rely on others who are viewed as out for themselves or busy with their own troubles. Special concerns center about the trials of raising children for life in such a world. In general one is manipulated by others, buffeted about by circumstances, hence the person might just as well resign himself to go along with what is required since it is useless to fight.

Representative items are: "Trying to get ahead in life is just too hard"; "I feel that I just can't do anything right"; "Most people don't know how much their lives are run by other people"; "Raising a small child today makes anyone worry a lot". Scale reliability is respectable, being .781 for Indians, .836 for whites, and .809 over both groups. Because of the manner in which the answer sheets were laid out (see Appendix A), a low score indicates feelings of powerlessness.

Factor II: A Conformist Protestant Ethic vs. an Anti-Social Hopelessness.

This bipolar 16 item factor portrays a conventional-conformist orientation signifying an anti-alienative mode of adjustment. The themes of the Protestant Ethic prevail. Work is of prime importance, ability counts, school is very useful, life is worthwhile, and one's family is reliably close by. The negative end focuses on a hopeless future and the baseness of human nature. Representative statements are: "Most of the time I feel that the work I'm doing is important and worthwhile"; "Success is more a matter of real ability than luck"; "As I see it now, the future looks pretty empty for me".

The reliability of this scale leaves something to be desired. The coefficient for Indians was .617, for whites .674, and overall, .646. Though further work on the development of this factor is merited, it is still believed that the observations made with it may be suggestive. A low score denotes a conformist, anti-alienative outlook.

Factor III: Meaninglessness.

Long considered a central feature of an alienated outlook, the 8 items that comprise this factor emphasize a reliance on luck and chance for progress with the notion that rules and regulations are really not valid. Meaningfulness is therefore not socially but individually determined. This leads to a strong element of hopelessness. Representative items are: "With so many different religions around, one doesn't really know which to believe"; "A person's future is a matter of luck"; "Most of the unhappy things in my life have been due to bad luck." Scale reliability is .703 for Indians, .701 for whites, and overall .702. A low score indicates the perception of a meaningless world.

Factor IV: Hopeful Friendliness.

Like Factor II, these 5 items seem to portray an anti-alienative outlook. Looking at the components of this scale from its positive side, an optimistic future is associated with constructive understanding and social relationships among people in a collective sense. Typical items are: "The world in which we live is really a friendly place"; "The future looks pretty good to me"; "I feel that people understand each other more nowadays than in the past." The factor demonstrates good reliability, .825 for Indians, .776 for whites, and .800 over both groups. A low score suggests what might be termed an hopeful friendliness.

Factor V. Psychosocial Isolation

These seven items stress a physical and mental separation from others. Aloneness is perceived as the respondent's mode of existence. Illustrating these tendencies are statements such as: "I often feel people around here are not too friendly"; "Sometimes I feel all alone in the world"; and "I often get the feeling that my ideas are out of date." The scale reveals good reliability with coefficients of .781 for Indians, .838 for whites, and .810 over both groups. A low score connotes psychosocial isolation.

Factor VI: Normlessness.

This concept embodies Durkheim's classic notion of anomie which in psychological terms, Seeman (1959) has designated, Normlessness. Here we find approval for breaking the rules of society. Still there is implicit recognition of a code of conformity to unwritten personal-moral law. Getting ahead counts and a superficial acceptance of conventional behavior for the sake of appearance is apparently tolerable. Representative items from the six that comprise this scale are: "Sometimes it's all right to get around the law if you don't actually break it"; "You have to be a little bit bad to make money these days."; "These days, getting ahead is the only thing that counts." Factor reliability is reasonable, being .709 for Indians, .760 for whites and .735 over all. A low score indicates a normless outlook.

Factor VII: Alienation from Family and Family Life.

These four items seem to have a common thread running through them, but do not form a reliable scale. Though all the statements reflect disenchantment with family life, it is likely that there was just enough variation in common because of content for these items to make a factor, but not enough across subjects to suggest a truly viable scale. Possibly for future research, additional similar items could be assessed in order to raise scale reliability over the .3 to .4 range demonstrated here. Because of the unreliability of this instrument, it will not be discussed in the following pages. It is also possible that somewhat similar information is being tapped via the child rearing measures.

Theoretical General Alienation

Originally composed of 116 items, this more or less composite scale was reduced to 87 questions by the analyses. It was, however, used in effecting the initial group breakdowns. Previous work with low educational level subjects in a Job Opportunity Center suggested good coverage of the alienation domain in a reliable manner (Curtis et al, 1965).

The items derive from the theoretical views of Dean (1961), Seeman (1959) and many others. They were designed to evaluate the concepts of Powerlessness, Normlessness, Psycho-social Isolation, Self-Estrangement, Hopelessness, Meaninglessness and alienation from institutional settings. The results, as will be presented, indicate that this instrument appears to have performed quite well. Reliability is most acceptable, being .889 for Indians, .881 for whites and .885 over both groups. In this instance, a high score indicates a generally alienated outlook.

Alienation: Summary

Of the seven factor scales, it appears that six should provide meaningful data. Scale VII, as already noted, appears too unreliable to use even for discussion purposes. The abbreviation, ALIEN, will be employed to designate use of any of the Alienation scales, and specific reference will be by

Table 5

Correlations Among Alienation Measures for Indians and Whites[1]

Indians

Scale	I	II	III	IV	V	VI	VII	Theor.
Alien I								
I		-332	461	-193	516	220	302	-790
II	783		-371	213	-331	-064	405	624
III	"	783		063	308	345	293	-577
IV	"	"	783		-124	183	-191	409
V	"	"	"	783		125	286	-607
VI	"	"	"	"	783		066	-190
VII	"	"	"	"	"	783		-501
Theor.	715	715	715	715	715	715	715	
					Whites			
I		-322	409	-312	484	374	335	-761
II	709		-392	335	-302	-383	-544	597
III	"	709		-093	267	631	380	-575
IV	"	"	709		-261	-112	-344	544
V	"	"	"	709		-167	275	-573
VI	"	"	"	"	709		346	-534
VII	"	"	"	"	"	709		-578
Theor.	689	689	689	689	689	689	689	

---

[1] Correlation coefficients are given above the diagonal (decimal points omitted); sample size is below diagonal.

their factor notations, e. g. I, II, III, etc. The general theoretical scale will be denoted as Theor. Table 3 presents the intercorrelations among these scales for both the Indian and white groups. It will be noted that relationships among the factors depart from orthogonality though such is better approximated by the Indian Ss. The compromising manner by means of which the scales were constructed across the two main subject groups and the two within-subject samples for whites and Indians undoubtedly constitute a good reason for the attenuation of independence among the scales. Since the average relationship seems to be below .4, relative independence can still be inferred though with caution. The high coefficients with the theoretical scale are understandable since the items comprising the factors are contained within the Theoretical scale.

Achievement Motivation Measures.

n ach.

Probably the most widely employed technique for assessing achievement motivation, this projective measure has seen use in virtually every conceivable situation in which this form of motivation may play a role (Atkinson, 1958; Heckhausen, 1967). The test, as employed here, consisted of three pictures from the Thematic Apperception Test (Murray, 1943). These pictures were selected on the basis of an analysis reported by Murstein

(1965) of the ability of this and similar pictorial material to elicit story content of an achievement nature. The TAT cards selected have been denoted traditionally as: 2, "Country scene: in the foreground is a young woman with books in her hand; in the background a man is working in the fields and an older woman is looking on" (Murray, 1943); 8BM, "An adolescent boy looks straight out of the picture. The barrel of a rifle is visible at one side, and in the background is the dim scene of a surgical operation, like a reverie-image (Murray, 1943); 17BM, "A naked man is clinging to a rope. He is in the act of climbing up or down" (Murray, 1943). Of all of the TAT cards, these three elicited the most achievement oriented content, and cards, 2 and 17BM were able to discriminate significantly between college men who demonstrated either high or low academic performance (Murstein, 1965; p. 537).

Since this measure was administered to groups of students, the pictures were photographically enlarged to a two by three foot size, mounted on heavy cardboard and displayed before the Ss. In order to familiarize the students with the task, an example picture was shown prior to the three test illustrations. The instructions were read simultaneously with the presentation of this picture and after all questions were answered, the test materials were shown. The following instructions were again read to the subjects.

> You are about to take a test of your creative imagination. Three pictures will be shown to you. You will have about 4 minutes in which to write a story about it. There are four questions which should be answered in your story: 1) What is happening: who are the persons? 2) What has led up to this situation? That is, what has happened in the past? 3) What is being thought? What is wanted? By whom? 4) What will happen? What will be done? Plan to spend a minute on each question. If you do so, you will cover all the elements of a story plot in the time alloted. Obviously there are no right or wrong answers. You should feel free to make up any kind of story you like about the pictures. Try to make the story vivid and dramatic, for this is a test of creative imagination. Do not simply describe the picture you see. Tell a story about it. Work as fast as you can in order to finish in time. Make the stories interesting. If you need more space for your story, use the reverse side of your paper. Are there any question?

These instructions are derived from those employed by McClelland and his associates (1953) in their research. In the present testing situation, the four questions were listed on a blackboard in front of the group. In addition the pictures were presented in the order, 17BM, 2, and 8BM, which appeared to indicate a pattern of increasing difficulty. At first, it was desired to randomize order of presentation; however, in a few pre-test sessions, especially for the younger children, it was observed that displaying the more abstract and difficult pictures first tended to minimize written output. Apparently some of the children were overwhelmed by the task. This seemed to be countered by administering the materials in order of increasing complexity.

It will be noted that two of the three pictures utilized are designed for males, 8BM and 17BM. Rather than introducing a bias into the testing situation, past research indicates that both sexes project more achievement material in response to "male" as opposed to "female" pictures (Murstein, 1965).

Much argument centers about the reliability and validity of the n ach approach to the assessment of achievement motivation. There is no doubt that interscorer agreement in dealing with individual pictures tends to be quite high (Atkinson, 1960; McClelland et al., 1953). Reliability of both the test-retest type and internal consistency have either been totally unsatisfactory, or at best, barely acceptable (Birney, 1959; Kagan and Moss, 1959; Krumboltz and Farquar, 1957; McClelland et al, 1953; Morgan, 1953). McClelland (1958) claims that traditional reliability conceptions are inappropriate for thematic methods, but to this writer, these arguments leave much to be desired.

To determine if a reliable scoring system could be achieved, the writer, using the guidelines offered by Atkinson (1958) and McClelland and his associates (1953), conducted a number of training sessions with two scorers. To evaluate the success of this effort, 25 protocols were selected and scored. The degree of agreement by separate pictures and over all pictures is evidenced by the following correlation coefficients: card 17BM, .997; card 2, .992; card 8BM, .988; and over all three cards, the interscorer correlation was .995. There can be no question regarding scoring agreement between these individuals.

The next question concerns reliability. Table 6 reveals the generally low and unacceptable card intercorrelations for the test sample and for the total groups of Indians and whites. The average intercard correlation across both judges was .096. For Indians this was .115, while for whites, the coefficient of .125 was hardly an improvement. Indeed very serious doubts must be entertained about the usefulness of the n ach measure as employed here. Since this approach has a rather impressive history and its supporters do challenge traditional concepts of reliability, we will include in the discussion evidence bearing on the meaningfulness of n ach and then reassess its utility.

Table 7 sheds some light on this question of meaning. Four apparently independent objective measures of achievement motivation were derived in the present work; however, n ach does not relate significantly to any one of these for the Indian sample. Four of the correlations for the white sample do attain statistical significance but the magnitude of the

Table 6

n-Ach Card and Total Score Correlations for Test Sample, Whites and Indians

	17BM	2	8BM	Total
		Test Sample		
17BM		117	074	710
2	25		111	634
8BM	"	25		540
Total	"	"	25	
		Indians		
17BM		062	068	550
2	711		216	650
8BM	708	708		656
Total	708	708	708	
		Whites		
17BM		152	103	630
2	561		121	612
8BM	560	560		323
Total	560	560	560	

relationships is quite low. It should be noted that similar negative findings have been reported a number of times (Himelstein, Eschenbach and Carp, 1958; Holmes and Tyler, 1968; Marlowe, 1959; Melikian, 1958). Considering the low reliability of the n ach measure little more could be expected.

The Objective Measures of Achievement Motivation.

Of 44 items analyzed, 38 appeared useful for assessing the motivation to achieve. Four scales composed of 21 of these questions resulted from the factor analyses undertaken. They are as follows:

Factor I: High Drive. The 7 items that make up this scale indicate identification with hard work plus the conviction that great efforts must necessarily lead to great things. Typical items are: "I would like to do something big"; "I enjoy work"; "I like to be able to do things better than other people." As Table 2 indicates, reliability is good, being .807 for Indians, .788 for whites, and .798 over both groups. A low score suggests high drive.

Factor II: Work Anxiety. These six items focus on concern over job or task difficulty, complexity, and completion. There is also an other-directed quality that suggests the importance of social approbation of one's efforts as long as such is not accompanied by close scrutiny of performance.

Representative statements are: "I get mixed up when a job makes you do a number of different things"; "Often I don't do a job I know I should"; and "When people say I'm not doing well on a job it slows me down." Reliability appears acceptable, with a coefficient of .772 for Indians, .674 for whites, and over all Ss .723. A low score connotes work anxiety.

Factor III: Reluctant Effort. These four items suggest aversion to hard work. Emphasis is on reading with indications of lack of a desire to read and difficulty remembering what is read. Among the statements are: "I hate to face up to a hard job"; "I do not like to read"; "I have trouble remembering what I read". With the reduction in number of items over the first two factors, there is a drop in reliability. That for the Indian sample was .581; for whites, .671, and over both groups .626. Findings with this scale can only be treated as suggestive due to the low reliability. A low score indicates reluctant effort.

Factor IV: Calvinist Work Ethic. Composed of four items, this factor emphasizes the importance of hard, steady work in the sense of a dedication to duty. Such themes are akin to the Protestant ethic, or more specifically, the Calvinist conception of work as an ennobling activity. Representative statements are: "I like to do my very best in whatever I try";

"It is the steady worker who usually gets the most done"; and "I try to do things well, even though I may not like them." Reliability is not good, but is similar to that obtained with factor III. The coefficients were .633 for Indians, .567 for whites and .600 for the total group. Again, this factor will be discussed with a view toward determining its heuristic value and potential for further development. A low score suggests internalization of a Calvinist work ethic.

Theoretical General Achievement Motivation. All 38 achievement motivation items were combined to produce one general scale. This, of course, included the above subscales. Reliability was good, being .812 for Indians, .778 for whites, and .803 over all Ss. A low score is taken to indicate high motivation to achieve.

Achievement Motivation: Summary

Table 7 provides the correlation matrices for all of the achievement motivation measures for both Indians and whites. Group patterns of coefficients are quite similar, except for the high relationship between factors III and IV for the white sample (r = .778) which departs markedly from that observed for the Indians (r = .129). The relative unreliability of these two factors may be involved in this discrepancy. The quite low magnitude of the correlations

Table 7

Correlations among Achievement-Motivation Measures for Indians and Whites

Indians

ACH-MOT.	n-ACH	I	II	III	IV	Theor.
n-Ach	--	002	-005	043	020	-054
I	711	--	037	-182	297	646
II	"	783	--	286	118	-390
III	"	"	783	--	129	-598
IV	"	"	"	783	--	355
Theor.	"	"	"	"	783	--

Whites

ACH-MOT.	n-ACH	I	II	III	IV	Theor.
n-Ach	--	-138	105	048	108	-168
I	512	--	-049	144	145	342
II	"	710	--	061	139	-262
III	"	"	710	--	778	-507
IV	"	"	710	710	--	-561
Theor.	"	"	"	"	710	--

among the factor scales suggests that the purpose of the factor-analyses was well realized.

Attitudes Toward School

The significance of attitudes toward the school and classroom for academic achievement cannot be underestimated. As one might expect, children who do poorly in school develop negative attitudes toward themselves, others, and the educational situation (Farquhar, 1963; Henry, 1957). Those from lower class settings usually reveal the most negative views of the school, yet even these individuals show a positive orientation toward education (Riessman, 1965). Similar findings have been demonstrated for Indian children and adults (Wax et al, 1964). This apparent discrepancy is probably explainable on the basis of the great value our culture places on gaining an education while simultaneously, the child, undergoes many troubling experiences in his contacts with the school and teachers.

Examination of the research literature in the area of attitudes toward the school leads to a surprising conclusion, namely that studies in this area are few and far between. The perspectives of parents, teachers, and the community have been relatively well evaluated, but extremely little effort has been expended to determine the outlooks of the children themselves. It is gratifying to see some recent attempts to to correct this imbalance (Nordstrom, Friedenberg and Gold, 1967). Still we find a dearth of work in this area and are therefore unable to assess either the dimensions of attitudes toward the school or the relationship of these tendencies to academic achievement and other educationally relevant variables. The present study is designed to partially rectify these research inadequacies. To accomplish this end, 25 objective items were written to assess the attitudes of students toward various aspects of the school. Twenty-three held up psychometrically and contributed to the final scales. The measures are as follows:

Factor I: School Continuation vs. Rejection.

These seven statements clearly illustrate acceptance or rejection of the school situation and its potential worth. There is, however, some indication of guilt and regret if one desires to leave the school. Representative items are: "As soon as I get the chance I will probably leave school"; "I like to try to get good grades in school"; "If I left (quit) school, I wouldn't really miss anything"; and "Many of us would like to go to college." The reliability coefficients obtained were .732 for Indians, .767 for whites and .750 for all Ss. A low score connotes a desire to continue in school and graduate.

Factor II: Teacher Acceptance or Rejection. The perception of and relationship of the children to the teacher is pictured in these questions. The teachers are thus depicted as supportive and helpful or hostile and rejecting of both the children and their families. Some lack of understanding on the part of the teachers is also being assessed. Among the seven items making up this factor are: "I find it hard to get along with my teachers"; "The teachers here really like the children and want to help them"; "The work the teachers want you to do is just too hard"; and "The teachers don't really like the parents of the children here." Reliability is good, being .843 for the Indian Ss, .886 for whites and .855 over all. A low score indicates a positive attitude toward the teachers.

Factor III: School Uselessness. Agreement with these five statements connotes the feeling that the school is out of harmony with existential reality. It is therefore likely to perpetuate useless or even harmful teachings. At best the school is simply irrelevant. Reflecting this orientation are items such as "School doesn't really help a person to make a better life"; "I don't see any good reason to stay in school"; and "Children learn things at school that make them be disrespectful or mean to their parents." One item is held in common with Factor I. Reliability is good, being .808 for Indians, .839 for whites and .824 for all Ss. A low score indicates a perception of school uselessness.

Factor IV: Rational Dislike of School. These four items suggest a negative attitude toward school coupled with recognition of real factors that may reduce the meaningfulness of education. Present is also a component of helplessness in the face of the school situation. Representative of this factor is "I often feel trapped and helpless in school"; "Around here it's hard for a person to stay in school"; and "College costs too much for most of the people around here." The reliability coefficients computed are markedly discrepant for Indians and whites. The coefficient of .544 obtained for the Indian pupils implies the need for very cautious use of the measure with this group. The coefficient of .815 observed for whites and .680 over both groups indicates the poential of this factor. The discrepancy might of course reflect a chance phenomenon, thus the scale needs further evaluation. A low score connotes negativism toward school utility.

Theoretical Attitude toward the School Scale. The 23 items comprising the four factors were combined to gain a general picture of the children's attitudes toward the school. Reliability for this instrument is acceptable but not as high as desired, being .712 for the Indian sample, .729 for whites and .720 over both groups. A low score indicates a positive attitude toward the school.

The Personal Distance Approach to Teacher Evaluation.

In order to assess that significant aspect of attitude toward school, namely view of the teacher, the more subtle experimental approach developed by Little and his associates was employed (Little, 1965; 1968; Little, Ulehla and Henderson, 1968). This technique is based on the concept of Personal Space which Little (1965) defines as "the area immediately surrounding the individual in which the majority of his interactions with others takes place" (p. 237). The procedure used to assess personal space has been termed, the Doll Placement Technique, the basic purpose of which "is to find out how the child thinks two people stand in a given situation". In others words, the experimenter verbally depicts a situation to a child who is provided with two doll figurines. The child then places these on a sheet of paper to indicate how he thinks the persons represented by the dolls would stand relative to each other for the situation described. The scores used here are the distances between the doll figures in 12ths of an inch.

The materials provided are four dolls designated, adult male, adult female, a small sized child, and a medium sized child. Sheets of paper 12 by 18 inches plus pencils and a pad of answer sheets are also used. The latter is for remarks made by the children relative to the situations. Appendix D provides a full description of this procedure. It will be noted that the experiments begin and end with neutral doll placement tasks. These permit an assessment of reliability plus referents for judging change due to various of the specific situations introduced. The instructions also pose situations in which the child taking the test can project his views onto a friend, thus lessening elements of personal threat. He is then asked to respond in terms of his home situation, specifically with regard to his parents. It is thus possible to compare the personal distances at which various figures are placed by the children. Contrasts in the present study could be drawn between present teachers and that of the preceding year, between mothers and fathers, teachers and parents. Each of these were further subdivided with reference to situations in which the child was being praised or scolded. The assumption underlying use of this technique was that the distance at which an individual was placed by a child would reflect the positiveness or negativity of the child's feelings toward that figure. Then one could determine possible relationships between that child's outlook and other relevant variables. The work of Little

(1965; 1968) strongly suggests the validity of the Personal Distance concept and measurement procedure for a variety of circumstances, including that of cultural variation.

Internal consistency was evaluated across the 10 items by means of the analysis of variance procedures employed for all of the attitude-orientation measures. This turned out to be .932. No significant difference was obtained between the two standard items (t = 1.353, df = 156), again suggesting the reliability of this procedure.

Table 9 presents the correlations among the various items for the 160 Ss who participated in this aspect of the study. These pupils came from three different schools on the reservation (Kyle, Loneman and Oglala Community School) and were all either in the seventh or eighth grades. The writer trained three Indian women in the administration of this technique. These ladies were known to the children and demonstrated great skill in setting the children at ease, though there was little evidence that such was necessary. The main cause of variation in sample size for the various correlations in Table 9 is due to the fact that some children did not come from homes in which both parents were present. The magnitude of the item correlations suggests a fair consistency on the part of the Ss across all of the items.

Attitudes toward School: Summary. The abbreviation, ATS, will be employed to denote the Attitude toward School scales, and as with the other measures, further specification will be via the use of Roman numerals for the various factors, e.g. I, II, III, IV, and, of course, Theor.

Table 8 contains the correlations among the various ATS scales for the Indian and white samples. In general, these are of moderate strength, indicating attenuation of orthogonality which may possibly be explained in the same manner as for the Alienation scales. It is still apparent that variance in common among these measures is far exceeded by that not held in common, thus one may infer that different aspects of this complex are being assessed by the scales. Table 9 provides the correlation coefficients between the Theoretical ATS measure and the Personal Distance items. It is evident that no statistically significant relationship exist between these instruments. Since the use of the Personal Distance technique was regarded as a pilot project, no breakdown into the various ATS factor scales was carried out. The same procedure was employed relative to the Alienation and Achievement motivation domains. Table 11 reveals a similar pattern of nonsignificant coefficients with these measures.

Table 8

Correlations among Attitude Toward School

Scales for Indians and Whites

Indians

	I	II	III	IV	Theor.
I		417	-692	-285	-779
II	783		-408	-350	-784
III	"	783		296	784
IV	"	"	783		480
Theor.	"	"	"	783	

Whites

	I	II	III	IV	Theor.
I		390	-695	-286	-689
II	709		-408	-362	-786
III	"	709		352	736
IV	"	"	709		491
Theor.	"	"	"	709	

Table 9

Correlations among Personal Distance Items and ATS Theoretical Scale for Indian Sample

	1	2	3	4	5	6	7	8	9	10	Theor.
Standard		355	329	296	311	335	392	402	434	520	042
Past Tchr-Praise	157		735	788	648	625	505	612	551	642	-092
" " -Scold	154	154		673	772	591	655	554	674	574	-063
Present Tchr-Praise	158	158	155		682	563	558	620	517	602	-097
" " -Scold	156	155	152	156		626	640	514	580	576	-049
Father-Praise	137	138	134	138	135		576	738	609	668	-129
" -Scold	134	135	131	135	132	135		618	705	614	-020
Mother-Praise	151	151	148	152	149	132	129		649	698	-040
" -Scold	148	148	145	149	147	128	126	147		632	010
Standard	158	158	155	159	156	138	135	152	149		028
ATS Theor.	111	111	109	112	110	99	98	106	106	112	

Child-Rearing Measures.

An extensive literature has already been cited regarding the association of certain child-rearing patterns with high achievement motivation and performance in school settings. Much has also been made of the possibility that traditional Sioux practices in this area may play an important role in the often theorized low motivation to achieve in school plus the poor academic records attained by Sioux Indian children. Child-rearing experiences and perceptions thus constituted a significant complex of variables to be evaluated in the present research.

A very large number of measures of parent-child relations are available; however, few appear as useful for administration to low educational level, minority poor Ss as the Bronfenbrenner Parental Behavior Questionnaire (BPB). Siegelman (1963) conducted extensive analyses with this instrument utilizing children from the 4th through the 6th grades of Puerto Rican, Negro and Italian parentage. All were from a lower class background. The children were requested to read and complete the questionnaire and apparently were able to do so without undue difficulty. Though the questionnaire was scored in previous works with respect to 15 subscales, in keeping with the general philosophy of measurement employed by the present researcher, it was decided to try out this device with the Indian and white children and determine from their responses meaningful patterns and dimensions for further consideration. The inapplicability of simply generalizing findings from previous work to the sample used in this research is evident from the discrepancies in factor structure between Siegelman's findings and those obtained here. Appendix A contains the 46 items of the form used in the present work. Eight items from the original instrument were deleted, and some rewrite of individual questions was necessitated to make the instrument relevant to the Indian Ss.

Analysis of the child-rearing items suggested the presence of six factors; however, variability in content precluded drawing up any meaningful theoretical scale. The factors may be described as follows.

Factor I: Rejecting Punishment. These 10 items stress both physical and mental forms of punitiveness directed by the parent toward the child. Included are efforts at shaming the child, depriving him of psychological and social satisfactions. Such acts are combined with threats of punishment. Typical illustrations are: "As punishment she made me go away from her"; "She slapped and hit me"; "She spanked me"; and "She told me that other children were better than I was".

Reliability is quite acceptable, being .816 for Indians, .761 for whites, and .797 over all. A low score signifies perception by the child of a rejecting punishing manner on the part of his mother.

Factor II: Restrictive Concern. Composed of six items, this factor suggests that the child is aware of maternal anxiety and concern toward him. Most evident are attempts to circumscribe, limit, and always be aware of the child's activities. Representative items are: "She worried that I couldn't take care of myself"; "She told me when I should come home"; "She wouldn't let me roam around because something might happen to me". Reliability appears passable, being .766 for Indians, a low .619 for whites and .692 for both groups. Findings with this scale should be cautiously interpreted. A low score connotes restrictive concern.

Factor III: Manipulation by the Child. This two item factor seems to focus on a combination of parental permissiveness and conscious manipulation of the parent by the child. The statements are: "I could talk her into most anything" and "She let me off easy when I was bad". Very possibly a function of the brevity of this factor, reliability is quite poor, being .511 for Indians, .560 for whites and .523 for both groups. Psychometrically this scale, if it can be termed such, should be ignored, but since this child-parent relationship has been mentioned by teachers and previous workers as of significance, it will be included in the following discussion for heuristic reasons. A low score suggests that the child feels he can manipulate his mother.

Factor IV: Independence Training and Responsibility. Most widely discussed relative to the poor scholastic performance and achievement motivation of Indian children, these five items emphasize middle class themes of being helpful, hard-working, neat and organized. One expression of such tendencies concerns doing well in school. Illustrative content is: "She wanted me to get very good marks in school"; "She wanted me to help her"; "She expected me to take care of my own things". Though reliability is better than for Factor III, it is still poor, yielding coefficients of .647 for Indians, .502 for whites and .574 over all Ss. Again the theoretical significance of this factor suggests its cautious use here. A low score connotes home training for and expectations of independence and personal responsibility.

Factor V: The Helping Mother. These six items depict the classic image of the mother who is kind, considerate and thoughtful of the needs and problems encountered by her children. Helpfulness on the part of the mother relative to the child is of the utmost concern. Reflecting these behaviors are statements such as "She made me feel good and helped me when I had troubles"; "She taught me things I wanted to learn"; "She would like to help me with my school work if I found it very hard". Reliability is good, being .859 for Indians, .824 for whites and .842 for both groups. A low score indicates perception of a helping mother.

Factor VI: Mutual Love and Understanding. These 12 items center about a perception of closeness between the mother and child. A positive and mutual affectional atmosphere is stressed. Representative items are: "I could talk with her about everything"; "She said nice things about me to other people". Reliability is good, being..758 for Indians, .800 for whites and .779 over both samples. A low score connotes mutual love and understanding.

Child Rearing Measures: Summary. Table 10 presents the pattern of correlations among the six factors discussed above. In most instances, the scales are relatively independent of each other, though factor VI does show some overlap with Scales II, IV and V, but not enough to obscure the utility of any of these measures. The abbreviation CHREAR will be employed to designate these scales.

Table 10

Correlations among Child Rearing Scales for Indians and Whites

Indians

CHREAR	I	II	III	IV	V	VI
I		125	049	028	107	-068
II	783		-102	388	347	488
III	"	783		-105	-079	-086
IV	"	"	783		367	424
V	"	"	"		783	

Whites

CHREAR	I	II	III	IV	V	VI
I		208	028	072	104	-175
II	702		-028	267	286	316
III	"	702		-068	-007	039
IV	"	"	702		323	264
V	"	"	"	702		555
VI	"	"	"	"	702	

Children's Attitude-Orientation Measures: Summary.

Some 32 different measures were developed for specific use in the present study. These included seven scales designed to assess Alienation (Factor VII is eliminated), five for the assessment of achievement motivation, five to evaluate attitudes toward school plus eight experimental procedures for personal distance to estimate teacher-pupil relationships, and lastly six scales for the measurement of child-rearing practices. In addition, the McClelland-Atkinson projective approach to achievement motivation was also employed.

Table 11 presents the matrix of correlations among the above measures for the Indian sample; Table 12 accomplishes the same for the white Ss. Table 13 does the same for the n ach and Occupational-Aspiration instruments.

The parallel pattern of correlations in Tables 11 and 12 indicate the similarity of both the Indian and white pupils in relationships among these variables, and also the stability of the measures themselves. In the main, the coefficients tend to be low to moderate in magnitude. Detailed discussion of these data will be offered in the next chapter. One should still be aware of the possibility of partially explaining such relationships on the basis of fairly strong

Table 11: Correlations among Measures of Alienation, Achievement Motivation, Attitude Toward School and Child Rearing Measures for Indians (N=783)

		ACHMOT					ATS				
		I	II	III	IV	Theor.	I	II	III	IV	Theor.
ALIEN	I	076*	496**	231**	141**	-224**	-121*	-222**	203**	500**	302**
	II	206**	-190**	-220**	280**	435**	449**	342**	-507**	-300**	-525**
	III	048	326**	121**	078*	-143**	-136**	-050	341**	261**	232**
	IV	176**	-020	-138**	074*	221**	130**	223**	-022	-146**	-177**
	V	067	422**	263**	084*	-242**	-175**	-226**	253**	422**	336**
	VI	133**	208**	029	145**	033	-020	005	140**	111**	068
	Theor.[1]	031	-490**	-305**	-006	382**	278**	323**	-373**	-533**	-465**
ACHMOT	I						263**	183**	-150**	-033	-195**
	II						-076*	-153**	151**	506**	216**
	III						-275**	-309**	221**	360**	372**
	IV						282**	219**	-211**	012	-244**
	Theor.						458**	420**	-367**	-430	-512**

*Significant at .05 level.
** " " .01 "

[1] Sample size for correlations with the theoretical alienation scale is 715.

Table 11 (Continued)

		CHREAR					
		I	II	III	IV	V	VI
ALIEN	I	041	013	058	-008	070	-162**
	II	-116**	228**	-113**	251**	179**	325**
	III	099**	-060	030	-018	-072*	-141**
	IV	028	039	-061	004	087*	090*
	V	085*	034	050	046	-039	-139**
	VI	034	071*	-021	-061	041	029
	Theor.	-097*	080*	-125**	101**	148**	266**
ACHMOT	I	-031	151**	-058	178**	106**	172**
	II	126**	027	063	055	-027	-100**
	III	092*	-049	126**	-119**	-116**	-220**
	IV	016	204**	-100**	178**	127**	204**
	Theor.	-106**	183**	-170**	223**	198**	350**
ATS	I	-090*	307**	-194**	345**	224**	327**
	II	-023	181**	-151**	206**	124**	267**
	III	097*	-258**	118**	-295**	-154**	-268**
	IV	070	-023	116**	-071*	-149**	-228**
	Theor.	088*	-255**	194**	-323**	-190**	-345**

Table 11 (Continued)

	Theor. ALIEN		Theor. ACHMOT		Theor. ATS	
	r^3	N^2	r^3	N^2	r^3	N^2
Personal Distance						
Standard I	-022	108	-001	110	042	111
Past Tchr-Praise	002	108	-178	110	-092	111
" " -Scold	-017	106	-125	108	-063	109
Present Tchr-Praise	036	109	-134	111	-097	112
" " -Scold	012	107	-101	109	-049	110
Father-Praise	033	97	-093	98	-129	99
" -Scold	-005	103	-070	97	-020	98
Mother-Praise	026	103	-164	105	-040	106
" -Scold	044	96	-074	105	010	106
Standard II	-038	109	-100	111	028	112

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[2] These columns indicate sample sizes for correlations with the Personal Distance Items.

[3] The scoring of the theoretical ACHMOT and ATS scales for these correlations is opposite to that of the same scales elsewhere in this table and throughout the text. Here a high score equals high ACHMOT and a positive ATS.

Table 12

Correlations among Alienation, Achievement Motivation, Attitudes Toward School and Child Rearing Measures for Whites[1] (N = 709)

		ACHMOT					ATS				
		I	II	III	IV	Theor.	I	II	III	IV	Theor.
ALIEN	I	-049	395**	045	088*	-166**	-121**	-279**	189**	455**	314**
	II	271**	-108**	425**	458**	-025	396**	409**	-370**	-254**	-472**
	III	-099**	194**	018	032	-202**	-292**	-270**	307**	282**	366**
	IV	149**	-110**	-024	-012	206**	191**	286**	-193**	-254**	-296**
	V	-038	350**	082*	082*	-187**	-126**	-199**	131**	354**	234**
	VI	-022	162**	000	011	-162**	-246**	-326**	295**	213**	375**
	Theor.	127**	-348**	023	-004	257**	314**	424**	-341**	-484**	-486**
ACHMOT	I						275**	237**	-213**	-072*	-291**
	II						-085*	-189**	160**	440**	243**
	III						086*	099**	-009	074*	-096*
	IV						096*	066	001	132**	-048
	Theor.						245*	262**	-242**	-292**	-313**

[1] Sample sizes: N = 709 except for the following **rs**; ALIEN-Theor. r's, N = 689; ACHMOT-CHREAR, N = 701; ATS-CHREAR, N = 701.

*Significant at .05 level.

** " " .01 "

Table 12 (Continued)

		CHREAR					
		I	II	III	IV	V	VI
ALIEN	I	099**	052	101**	-018	-133**	-212**
	II	-168**	160**	-122**	206**	250**	366**
	III	092*	-130**	117**	-131**	-141**	-209**
	IV	-069	022	-027	061	068	170**
	V	062	043	-005	-021	-154**	-210**
	VI	076*	-114**	176**	-122**	-118**	-207**
	Theor.	-172**	024	-137**	121**	199**	334**
ACHMOT	I	-015	039	-006	079*	068	136**
	II	024	050	080*	-044	-049	-123**
	III	-092*	039	-028	064	151**	098**
	IV	-088*	037	-003	086*	163**	075*
	Theor.	-015	019	-046	058	027	157**
ATS	I	-118**	153**	-056	237**	188**	267**
	II	-124**	109**	-093*	126**	200**	308**
	III	111**	-107**	064	-144**	-115**	-184**
	IV	101**	032	120**	-065	-112**	-174**
	Theor.	146**	-116**	115**	-193**	-207**	-322**

Table 13

Correlations of n-Ach, Occupational Aspiration Measures with Alienation, Achievement Motivation, Attitude toward School and Child Rearing for Indians and Whites

Indians[1]

		n-Ach	EOG	WORS	HN-I	HN-II
ALIEN	I	079*	-034	-079	-010	049
	II	-110	026	043	048	-033
	III	036	-035	-063	-005	036
	IV	-032	045	043	038	-084
	V	058	-005	-072	-009	075
	VI	034	015	-014	-014	022
	Theor.	-082*	056	081	078	-076
ACHMOT	I	--[3]	002	031	-065	-017
	II	--	013	-010	027	051
	III	--	-131**	-150**	-121*	140**
	IV	--	012	-007	-004	020
	Theor.	--	106*	112*	071	-114*
ATS	I	-073	121*	089	068	-126*
	II	-114**	082	060	054	-074
	III	107**	-003	-015	025	024
	IV	087*	038	034	037	-002
	Theor.	138**	-069	-056	-032	082
CHREAR	I	012	021	012	-022	-029
	II	-075*	046	-027	066	026
	III	030	-018	-003	-056	-001
	IV	-014	073	073	068	-099*
	V	-046	-036	-040	-013	038
	VI	-143**	007	016	-014	010
n-Ach			016	008	-048	-013

---

[1] Sample sizes for Indians = 711, except for n-Ach-Alien Theor.: N = 656; Occup. Aspirations - n-Ach: N = 386; all other r's with Occup. Measures, N = 412.

[2] Sample sizes for Whites = 553, except for n-Ach - Alien Theor, N = 519; n-Ach-Occup. Measures, N = 481; n-Ach all other scale N = 513.

[3] These data reported earlier

Table 13 (Continued)

Whites[2]

		n-Ach	EOG	WORS	HN-I	HN-II
ALIEN	I	101*	-124**	-118**	-082	080
	II	-076	102*	108*	092*	-132**
	III	125**	-151**	-106*	-143**	043
	IV	-069	038	029	036	-056
	V	122**	-070	-066	-020	-012
	VI	098*	-125**	-051	-154**	053
	Theor.	-142**	150**	124**	122**	-080
ACHMOT	I	--[3]	182**	224**	162**	105
	II	--	-036	-072	-026	-031
	III	--	036	101*	050	-177**
	IV	--	-007	053	-003	-134**
	Theor.	--	094*	052	084*	082
ATS	I	-110*	187**	163**	205**	-184**
	II	-152**	064	038	090*	011
	III	149**	-129**	-065	-137**	068
	IV	109*	-080	-052	-080	-006
	Theor.	213**	-149**	-106	-165**	067
CHREAR	I	-028	065	113*	042	-076
	II	-096*	031	031	080	-036
	III	126**	-095*	-097*	-088*	104*
	IV	-052	035	027	034	021
	V	-112**	079	131*	057	-115**
	VI	-046	037	093*	045	002
n-Ach			-123**	-059	-120**	062

*Significant at .05 level.
**   "   " .01 "

statistical associations within a variable complex (e.g. Alien), thus tables 5 through 10 should be consulted for a fuller understanding of the coefficients observed in Tables 11 and 12

Home and Parent Measures

It has already been mentioned that one phase of this study attempted to evaluate the role of the home and maternal parent in the educational performance and psycho-social orientation of the children. On the basis of the information outlined under the section on the Sample, some 210 mothers or mother-surrogates were interviewed by three local Indian women. Two hundred and six of these yielded usable data. Following the interview the respondent was paid five dollars for her participation. The interviewers were assigned possible respondents in three different areas of the reservation, one taking essentially the northern and eastern sections from the vicinity of Kyle and its environs, a second dealt with the Pine Ridge area and areas to the east and north, while the third interviewer focused on the Oglala-Manderson region plus the western part of the reservation. In a few instances, it was necessary to include towns such as Hot Springs, South Dakota and communities near the reservation in northern Nebraska. The interviewers seemed highly capable and provided a great deal of information. The forms employed may be found in Appendix E, and the grade distribution of the respondent's children are given in Table 14.

An attempt was made not only to obtain the evaluative remarks of the parents but also a response which could be quantified. As will become evident in the following discussion the reliability of some of these efforts at objectification turned out badly. In order to understand what occurred here, a few comments on reliability assessment in terms of internal consistency are in order. Fundamentally the problem reduces to variation across subjects relative to variability across items. A reliable measure will show consistency within subjects across items and also distinguish among subjects. In a number of instances in the present work, agreement across respondents was extremely high on individual items while differences from one item to another were proportionately much greater even though it was theorized on the basis of content that these should form a scale. Part of this problem comes from attempting to encapsulate in a yes-no type of response rather complex information, therefore in order to explicate what has occurred reference will be made to supportive verbal material recorded by the interviewers. The anthropological procedure of offering such perspectives would seem to be most appropriate here. Since the difficulty often revolves about rather substantive agreement on individual items, discussion of some of these will be provided

Table 14

Distribution of Parental Respondents by Child's Grade and Group

	Group[1]				
Grade	1	2	3	4	Totals
7	9	9	13	7	38
8	13	10	8	12	43
Subtotal	22	19	21	19	81
9	18	6	12	13	49
10	7	5	11	4	27
11	4	7	7	4	22
12	8	2	6	11	27
Subtotal	37	20	36	32	125
Totals	59	39	57	51	206

[1] Group 1: Achievement and Alienation below 50th percentile.
Group 2: Achievement above and alienation below 50th percentile.
Group 3: Achievement below and alienation above 50th percentile.
Group 4: Achievement and alienation above 50th percentile.
See pp. 90-91 for other details.

as they illustrate well rather definitive positions held by Indian parents. The reader should regard all individual item interpretations with great caution because of the inherent unreliability of single items.

The maternal interview attempted to assess six areas: attitudes toward the schools (ATS), toward education in general (ATE), toward the government (ATG), child rearing practices (CHREAR), alienation (ALIEN), and achievement motivation (ACHMOT). Fourteen items from the Interviewer home assessment form were combined to provide an index of socio-economic status. The details of these measures are as follows.

Attitudes toward School (ATS). Three items were combined to assess parental views of the school. These concern perceptions of whether the teachers desire to do that which is best for the children, understand the children, and from the parent's perspective, whether the children like to go to school. The reliability for these items is a surprisingly good .750, thus the quantitative score appears useful. A low score indicates a positive attitude toward the school.

Attitudes toward Education (ATE). Six questions were designed to evaluate the outlooks of the parent regarding education in general. These dealt with such considerations as whether or not the children should do well in school, continue their schooling, go on to college if possible and if education really helps one to make a better life for himself. In addition the respondent was asked if she wishes now that she had gone further in school. Reliability is essentially nil, being .078, and this is understandable since between 95 and 99 per cent of those interviewed took a positive stance toward education on each item. No inter-subject variation of any consequence is thus present. The definitive position evidenced here is, in itself, of the greatest significance. These data will, of course, be discussed in detail later.

Attitudes toward the Government (ATG). Much is made of the hostility of Indians toward the Bureau of Indian Affairs by its critics. It was thus felt that information in this realm might provide some indication of possible bias on the part of the respondents in addition to characterizing the general outlook of Indians toward their current situation. The interviewers were especially cautioned regarding the accuracy of these responses, and follow-up questioning by the writer repeatedly elucidated the view of the interviewer that what was obtained was indeed a true picture. Granted that one can argue the need for personal rationalization etc.etc.; however, there is no reason to suggest greater validity for more critical and negative positions on the part of Indians than those obtained here. As will become evident a majority of the respondents tended to be more positive than negative toward the "government people" as such outlooks are assessed by the two questions employed in this work. The fact that only two items were utilized does imply a shallow analysis of this domain, but it must be kept in mind that an exhaustive evaluation of attitudes relative to the government is not a part of the present research and that these two items were simply included as a kind of "control" as elucidated above. Reliability is .589 which though below desired levels can be heuristically used. A low score suggests a positive attitude toward the government people.

Child-Rearing Views (CHREAR). Four questions were employed to gain some idea of how mothers felt children should be brought up. These seemed to offer the possibility of distinguishing a restrictive-permissive dimension; however, the quantitative results are quite disappointing, yielding a reliability of only .257. Individual item responses would appear to be much more informative and reference to these will be made in the following pages.

Alienation (ALIEN). Nineteen items were included to determine the degree of alienation manifested by the interviewees. These dealt with the same concepts and dimensions utilized for the children, and again, the quantitative measure appears useful yielding a reliability of .701. A high score connotes an alienated outlook.

Achievement Motivation (ACHMOT). The six questions used to assess this area appear to have been quantitatively unproductive since they resulted in a reliability coefficient of only .373. Individual item analysis may prove of greater interest.

Socioeconomic Status (SES).

In order to get some idea of the socioeconomic status of respondents, the interviewers were provided with a form that had some 19 items, 14 of which appeared useful in assessing the economic situation of those interviewed. This form may be found in Appendix E. As can be seen, it asks the interviewer to provide a description of the respondent's home, main possessions, and also includes the educational level of the interviewee and her husband. The form is quite similar to those widely used by social scientists but does not include the occupational status of the household head. Nevertheless it is more extensive than most such devices in terms of the items it purports to assess. Reliability is generally acceptable though somewhat low, being .651.

Home and Parent Measures: Summary.

Of the seven home and parent measures developed, four appear useful as summary devices. These are Attitudes toward School (ATS), Attitudes toward the Government (ATG), Alienation (ALIEN), and Socioeconomic Status (SES). The remaining attempts to measure perspectives on education in general, child-rearing practices, and achievement motivation appear too unreliable for use. Still it will be quite useful to present data on individual items contributing to these topics since there is relatively little variability among the respondents in outlook as regards such items.

The question does arise concerning interviewer bias. As a rule this is ignored in most work with Indians. It is extremely difficult to eliminate such considerations. The interviewers appeared especially capable; however, if they did introduce any systematic errors, these would be confounded with sample factors since there is evidence that the general limitations placed on interviewer area would have normally led to different kinds of respondents. Tables 15 and 16 provide some indication of this possibility. There are obviously great differences among the respondents on individual items. Such could be a function of the interviewer or the sample. We also see that there are statistically significant differences among the samples of respondents in terms of "degree of Indian blood".

Table 15

Analysis of Parent Interview Items by Interviewer

	Interviewer						
	H(N=107)		S(N=24)		V(N=73)		F
Item	Mn	SD	Mn	SD	Mn	SD	
3a	.2	.79	.5	1.32	.1	.65	<1
3b	0	0.00	0	0.00	0	0.00	--[1]
3c	0	0.00	0	00	.1	.46	--[1]
4	2.1	1.95	1.9	1.96	.8	1.62	10.866**
7	.4	.99	.4	.90	.1	.49	3.592*
8	1.1	1.67	1.6	1.92	.5	1.28	5.261**
9	2.9	.34	2.8	.43	2.9	.65	<1
10	0	0.00	0	0.00	0	0.00	--[1]
11	.1	.57	.2	.82	.1	.47	<1
12	1.2	1.64	.4	.96	.4	1.06	8.993**
13	.1	.47	.1	.41	.1	.46	<1
14	0	0.00	.2	.80	0	0.00	--[1]
15	0	0.00	0	0.00	.1	.46	--[1]
16	2.1	1.93	.6	1.22	.3	.97	30.825**
17	2.2	1.92	1.8	1.95	2.0	1.99	<1
18	.4	1.15	.7	1.49	.1	.52	3.388*
19	2.7	1.83	3.5	1.35	.9	1.69	29.383**
20	.8	1.57	1.7	1.97	.4	1.25	5.855**
21	.4	1.08	.4	1.15	.4	1.18	<1
22	2.0	1.99	2.0	2.00	1.6	1.96	1.069
23	1.7	1.95	2.0	1.83	1.1	1.78	2.954
24	3.0	1.75	3.6	1.13	1.0	1.72	37.133**
25	1.2	1.79	1.9	1.96	2.1	2.00	8.750**
26	1.2	1.75	1.7	1.89	.9	1.65	1.906

[1] Analysis not possible with these data.
[2] Variable 44 is years of schooling of interviewed parent.
[3] Variable 45 is degree of Indian blood of interviewed parent in 8ths.
[4] Variable 46 is degree of Indian blood of child of parent interviewed in 8ths.

*Significance at .05 level.
** " " .01 "

Table 15 (Continued)

Interviewer

	H		S		V		F
Item	Mn	SD	Mn	SD	Mn	SD	
27	.2	.72	.2	.80	.1	.46	<1
28	3.5	1.35	3.8	.82	3.8	.91	1.870
29	1.2	1.79	2.3	1.97	1.4	1.92	3.357*
30	1.5	1.91	2.0	1.96	2.3	1.98	4.159*
31	2.3	1.97	1.6	1.97	2.4	1.96	1.336
32	3.0	1.72	2.9	1.73	1.4	1.90	19.179**
33	.6	1.40	.8	1.51	.4	1.25	<1
34	.7	1.54	1.1	1.73	.6	1.38	1.023
35	1.3	1.80	2.0	1.77	.8	1.57	5.079**
36	0	0.00	0	0.00	0	0.00	--[1]
37	1.1	1.70	.4	1.13	.6	1.38	3.221*
38	0	.38	0	0.00	0	0.00	--[1]
39	.2	.81	.2	.80	.1	.65	<1
40	.1	.54	0	0.00	0	.46	--[1]
41	1.8	1.97	3.5	1.32	.7	1.48	25.147**
42	.3	1.00	.4	1.15	.6	1.38	1.131
43	3.2	1.62	3.3	1.52	3.0	1.72	<1
44[2]	9.2	2.43	8.3	1.85	8.2	2.66	3.922*
45[3]	5.7	2.08	6.8	1.69	6.4	2.04	3.862*
46[4]	5.8	2.01	6.8	1.65	6.3	2.13	2.813

Table 16

Comparison of Interviewers on Parent Interview Scales

	Interviewer						
	H(N=107)		S(N=24)		V(N=73)		F
Variable[1]	Mn	SD	Mn	SD	Mn	SD	
ATS	2.7	3.01	2.3	2.73	1.0	2.03	8.752**
ATG	2.6	3.20	4.2	3.28	2.2	3.04	3.841*
ALIEN	6.6	3.69	4.2	2.67	7.6	3.38	8.137**
SES	40.6	9.86	47.9	8.37	46.5	8.58	11.516**

[1] ATE, CHREAR and ACHMOT are not presented because of low reliability.

*Significant at .05 level

** " " .01 "

In addition, Table 16 shows considerable variation in the socioeconomic status of the interviewed samples as might be theorized from knowledge of the areas in which the interviewers worked. One can also justify the summary attitude scores offered in Table 16 without much difficulty. These observations lead the writer to infer that the interviewers introduced surprisingly little bias into their findings, and therefore the interview data are probably quite valid.

Procedure

Much of the information regarding procedure has been presented in the preceding sections. A few notes are, however, in order. Following selection of the items, the test forms presented in Appendix A were made up and administered to all students available from the 7th through the 12th grades in the schools noted earlier. The school authorities and the children were highly cooperative. Despite efforts to make the questionnaire items understandable to even the slower students, a relatively small number of the children, especially seventh graders, were unable to complete their tests satisfactorily. Tests were also eliminated when there was evidence of any patterning of answers suggesting either the inability of the pupil to cope with the items, or his possible unhappiness over the entire procedure. This also resulted in the dropping of a number of the children from the sample.

Individual item data for both the children tested and also for the parent sample were punched on cards. As already discussed, factor-analysis (Principal Components with Varimax rotation) was applied to develop dimensional scales which were appropriate to the groups under study. Again, the writer would like to stress both the theoretical and psychometric difficulties encountered when one attempts to bring to this kind of situation measures developed on groups within the mainstream of white America. This is not to say that there may not be other problems encountered when the factor-analytic approach is applied cross-culturally (Peterson and Migliorino, 1967). The theoretical Alienation and Achievement Motivation scales discussed earlier were largely developed on the basis of the previous usage of most of these items with a low educational level, minority sample from a Job Opportunity Center, a War-On-Poverty program. An additional factor in their usage here was their evident content validity. A similar attempt with the Parent interview items, it will be remembered, did not turn out as well.

A year after the initial testing, 1966-67, the writer gathered school records regarding pupils who transferred or "dropped out" of school. Determining "dropout" is an extremely risky venture for the criteria employed to effect such a designation are extremely poor. Children leave school temporarily and may suddenly reappear elsewhere. This may occur a number of times within a school year. With cross-checking of school records and questioning of teachers and principals among others it was possible to identify 108 Indian youth who seemed to be reliably denoted at "dropouts", thus for the Indian Ss, this group could be compared with students who continued in school.

In carrying out the data analyses reported in the following pages, a significant variable for investigation is age; however, this is confounded with grade-level, and apparently extremely great age variation seems to exist within each grade. Because of this it was decided to confine analysis of the data to a grade-level breakdown. Again great variation within single grade levels often led to confrontation with the law of diminishing returns when relatively fine breakdowns such as those involving sex and "degree of Indian blood" were employed. In order to circumvent some of these difficulties a decision was made to provide a two category grade-level breakdown. This combined grades seven and eight and grades nine through twelve. All grade analyses will be based on this distinction.

Degree of Indian blood was recorded in eighths, and for most analyses this breakdown will hold true. Again exceedingly small samples resulted in some treatments of these data and a classification in terms of quarters appeared both more realistic and also more meaningful, hence such was utilized at certain times in order to illustrate various trends.

The massive amount of data collected and analyzed here required the use of a computer, and the Burroughs B5500 located at the University of Denver was employed. Two main forms of data analysis were utilized, correlational and analysis of variance. As will be evident, much room exists for finer treatments of the quantitative information and some of these will be carried out in the near future. Time and space limitations necessarily restrict what can be presented here; however, it should be noted that some work is currently being conducted on these data. Since discussion of the results will be in accordance with the previously formulated hypotheses, gaps may exist, nevertheless the data should be available to fill most of these.

CHAPTER IV

Results and Discussion I: Child-School Relationships

Basic Sample Characteristics

Before discussing the various hypotheses, the nature of the Indian and white samples should be made explicit, especially with regard to educationally meaningful variables. Tables 17 and 18 present such data for both the Indian and white youth, and offer relevant comparisons.

As can be seen, the distribution of sex is equivalent for both groups, on all grade breakdowns with almost half of the Ss at each grade level being male. One would therefore not expect any sex bias to be present. Degree of Indianness is represented by the "blood" measure presented in eighths, or in other words on an eight point scale. Eight represents the full-blood category. The value of 6.0 observed for the entire Indian sample denotes the Ss as 6/8 or 3/4 "Indian". Of special note is the shift between the seventh and eighth grade pupils and those in the highschool. The former demonstrate a mean of 6.2 while the latter show a lower degree of Indianness with 5.8. Table 18 reveals this difference to be significant beyond the .01 level indicating that the likelihood of continuing in school may be a negative function of amount of Indian "blood". In terms of the discussion presented earlier, the higher the above index, the less likelihood of exposure to and acceptance of white standards and values, hence

Table 17

Selected Basic Data for Indians and Whites
Plus Comparisons by Grades and Total Groups

Grades 7-8	Indians			Whites			
	Mn	SD	N	Mn	SD	N	F
Sex[1]	.53	.50	360	.53	.50	202	<1
Blood	6.2	2.02	356				
Intelligence							
L-T-NV-IQ	96.4	14.34	237	106.2	10.78	(4)	--[2]
" V-IQ	93.7	10.84	"	105.8	9.34	(4)	--[2]
" T-IQ	95.0	11.33	"	108.4	13.04	81	938.621**
K-F-IQ	95.6	13.28	83				
HN-IQ				110.3	15.23	118	
Achievement							
ITBS	74.8	11.65	21				
CAT-RAW	217.1	49.23	272				
-GP	7.6	1.17	332				
-%-ile	46.2	25.11	332				
MAT				99.2	20.25	164	

---

[1] Sex scored as 0 = males, 1 = females.

[2] F-ratio not computed because of sample size discrepancy and size of white sample.

[3] Variables presented where data exist for both Grades 7-8, and 9-12.

*Indicates significance at .05 level.
** " " " .01 "

Table 17 (Continued)

Grades 9-12	Indians			Whites			
	Mn	SD	N	Mn	SD	N	F
Sex	.50	.50	393	.50	.50	649	<1
Blood	5.8	2.15	392				
Intelligence							
L-T-NV-IQ	103.8	13.59	161	110.9	12.89	129	20.490**
" V-IQ	96.0	12.75	167	110.6	15.41	129	78.344**
" T-IQ	100.0	11.97	159	108.2	13.12	363	134.791**
K-F-IQ	96.0	12.44	251	109.0	14.50	74	57.463**
HN-IQ				105.3	17.76	90	
Achievement							
ITED-SS	10.7	4.10	351	15.8	5.96	510	189.916**
" -%-ile	35.6	20.18	351	60.1	25.86	510	222.418**
Totals^3							
Sex	.51	.50	753	.51	.50	851	<1
Blood	6.0	2.36	748				
Intelligence							
L-T-NV-IQ	99.4	14.50	398	110.8	12.86	133	64.947**
" V-IQ	94.7	11.73	404	110.5	15.29	133	154.300**
" T-IQ	97.0	13.10	396	108.2	13.11	444	154.542**
KF-IQ	95.9	12.65	334				
HN-IQ				108.1	16.55	208	

Table 18

Grade Comparisons for Whites and Indians on Selected Variables

Indians	Grades 7-8 Mn[1]	Grades 9-12 Mn	DF	F
Sex	.53	.50	750	1.232
Blood	6.2	5.8	746	6.870**
Intelligence				
L-T-NV-IQ	96.4	103.8	396	27.144**
" V-IQ	93.7	96.0	402	4.020*
" T-IQ	95.0	100.0	394	17.331**
K-F-IQ	95.6	96.0	332	<1
Whites				
Sex	.53	.50	849	<1
Intelligence				
L-T-NV-IQ	106.2	110.9		--[2]
" V-IQ	105.8	110.6		--[2]
" T-IQ	108.4	108.2	442	<1
HN-IQ	110.3	105.3	206	4.260*

---

[1] See Table 17 for remaining data (sample sizes and standard deviations).

[2] Not computed because of sample sizes and discrepancy (see Table 17).

more conflict with institutions such as the school and a higher potentiality of non-continuation of education. We will see this view borne out later when continuers and non-continuers are compared.

Examination of the data on intelligence demonstrates what has been observed for some time. White students score on the average higher than Indian pupils; however, it should be stressed that the latter are well within the average range for IQ. Of special interest is the finding on the Lorge-Thorndike tests that the Indian children show a pattern wherein their non-verbal IQ's are consistently above verbal IQ's. The presence of similar linguistic content on the Kuhlmann-Finch examination supports the speculation that what we are seeing here is a general deficiency in the language area that Indian children manifest. Verbal ability is, of course, a significant part of the acculturation process, and it can be argued that such skills as represented in these and similar instruments assess the kind of material normally representative of the white, middle-class cultural setting.

Comparison of the seventh and eighth grades with grades nine through twelve in Table 18 shows higher mean IQ's for Indians in the latter grades. Though these are most evident for non-verbal and total IQ's, the finding of less absolute change on verbal IQ (though still statistically significant) plus lack of change on the Kuhlmann-Finch can imply that intelligence is not influential in school continuation. An additional point here is that the non-verbal IQ's of Indian students in grades 9 through 12 are not depressed, but fall at the national mean or above. Whites do not show a like tendency, for where adequate numbers are available (L-T--T-IQ and H-N--IQ), IQ remains stable or even manifests a drop which on the Henmon-Nelson test is statistically significant. No relevant interpretation of this last observation is apparent.

Though they provide no information, Wax and his associates (1964) infer that measures of scholastic performance of Indian pupils on the Pine Ridge reservation may reflect a high bias because of the presence of whites and Indians from other reservations in the school data (Wax et al, 1964, p. 26). This argument can be extended to measures of intelligence in addition to educational achievement. All whites and known Indian pupils from outside of Pine Ridge were removed from the samples studied in this investigation. The numbers of whites so treated is provided on page 88. Only a few Indians from outside of Pine Ridge were identified and their performance was quite comparable to those of Pine Ridge Indian pupils. Less than five percent of the original sample from the reservation was white and removal of these _S_s changed mean scores usually less than one point, hence no bias is present or evident. In sum, there is every reason to believe that the intelligence of Indian pupils at Pine Ridge is well within the normal range and that school performance, where such tends to be low, it is not a function of IQ.

Turning to measures of educational achievement, no white seventh and eighth grade data comparable to that obtained on the Indian sample were available. The performance of Indian children in these grades on the California Achievement Test falls within the normal or average range with a grade placement level of 7.6 and a percentile equivalent of 46. Clear indications of depressed educational achievement are found for the high-schoolers on the ITED. Here the mean percentile of 35.5 for Indians compares quite unfavorably with the 60.1 found for whites. Undoubtedly this reflects linguistic-abstract ability weaknesses that are likely to become more important as school level increases. If, as seems apparent, IQ is not of prime significance here, it is likely that non-intellectual factors may be inhibiting development in this skill area. To identify such possibilities is the purpose of this research.

CHAPTER V

Results and Discussion II: Child-School Relationships

Alienation, Intelligence and Achievement

Hypothesis IA: Feelings of Alienation will increase as achievement and intelligence reduce.

This hypothesis suggests negative relationships between Alienation, and Achievement and Intelligence measures for both Indians and whites. Table 19 provides Pearson-Product Moment Correlation coefficients among the measures of these variables, and it can be seen that general support is obtained for the above contention.

Considering the Indian Ss first, a rather consistent pattern of negative associations (note the scoring direction for the variables) obtains between the Alienation scales and the Lorge-Thorndike and Kuhlmann-Finch IQ's. These range from low to moderate in magnitude and of the 28 coefficients computed, four fall beyond the .05 level and 22 beyond the .01 level of significance. Rather uniformly, correlations involving the verbal IQ score of the Lorge-Thorndike tend to be larger than those with the nonverbal scale. The suggestion might be made that even though intelligence does correlate negatively with alienation there is the probability that Indian children with deficiencies in the verbal area are subject to greater alienative stresses than those with more skill in this domain.

Table 19

Correlations among Alienation, Intelligence and Achievement Measures for Indians and Whites

Indians
ALIEN

r's	I	II	III	IV	V	VI	Theor.
L-T-NV-IQ	124*	-311**	280**	114*	184**	108*	-210**
" V-IQ	152**	-342**	355**	167**	234**	177**	-231**
" T-IQ	149**	-363**	348**	153**	230**	159**	-248**
KF-IQ	146**	-188**	206**	025	126*	066	-192**
ITBS	315	-311	337	135	403	037	-232
CAT-Raw Sc.	075	-519**	237**	186**	226**	057	-220**
" -GP	092	-471**	252**	174**	202**	152**	-217**
"%-ile	068	-399**	211**	135*	193**	075	-187**
ITED-SS	252**	-148**	531**	-016	164**	337**	-329**
" %-ile	177**	-108*	397**	054	138**	276**	-231**

N's							
L-T-NV-IQ	396	396	396	396	396	396	396
" V-IQ	402	402	402	402	402	402	355
" T-IQ	394	394	394	394	394	394	347
KF-IQ	334	334	334	334	334	334	316
ITBS	22	22	22	22	22	22	20
CAT-Raw Sc.	279	279	279	279	279	279	237
" -GP	332	332	332	332	332	332	283
"%-ile	"	"	"	"	"	"	"
ITED-SS	349	349	349	349	349	349	338
" %-ile	"	"	"	"	"	"	"

*Significant at .05 level

**Significant at .01 level

Table 19 (Continued)

Correlations among Alienation, Intelligence and Achievement Measures for Indians and Whites

Whites
ALIEN

r's	I	II	III	IV	V	VI	Theor.
L-T-NV-IQ	-019	-012	-088	-069	057	-043	035
" V-IQ	018	085	084	056	163	182	-044
" T-IQ	110*	-138**	202**	-046	098	118*	-193**
KF-IQ	184	-136	446**	139	154	342**	-196
HN-IQ	016	080	138	-074	-053	129	-125
ITED-SS	148**	-166**	314**	-034	120*	213**	-228**
" %-ile	091	-204**	316**	-004	048	204**	-208**
MAT	227**	-198*	279**	-134	088	226**	-300**
ITBS	134	-479**	434**	002	458**	296*	-311*
N's							
L-T-NV-IQ	95	95	95	95	95	95	94
V-IQ	"	"	"	"	"	"	"
T-IQ	367	367	367	367	367	367	378
KF-IQ	71	71	71	71	71	71	72
HN-IQ	175	175	175	175	175	175	180
ITED-SS	430	430	430	430	430	430	433
" %-ile	"	"	"	"	"	"	"
MAT	135	135	135	135	135	135	141
ITBS	65	65	65	65	65	65	58

This, of course, constitutes an additional hypothesis worthy of further evaluation. It is not possible at this time to indicate causal relationships among these variables. Those with lesser capacity may encounter the greater frustrations; however, a circular pattern of effects could cause those who are more alienated to be less motivated to perform on intelligence measures. In addition, intellectual withdrawal and negativism may be a correlate of alienation hence the lower IQ scores. In all probability, a fairly good theoretical case can be made for any of these speculations.

Additional questions arise when attempting to interpret the above findings. The method of constructing the Alienation measures more or less insures that these are cross-culturally equivalent; however, it is not so easily verified that the intelligence measures in use on Indian reservations are as appropriate as their constructors and administrators would like to believe. Work on bilingualism and intelligence (Lambert and Anisfeld, 1969) among some cited earlier shows the great lack of clarity that obtains in research of this sort. Sometimes bilingualism relates positively, other times negatively to intelligence. It is difficult to see how the former association could exist on the reservation.

The recent furor raised over Arthur Jensen's revival of the genetics-intelligence controversy may be relevant to research on the basic abilities of Indians. Jensen (1969) suggests the existence of different forms of intelligence, a formulation frequently suggested in the research literature but one which has almost totally been disregarded by educators and those who use standard IQ scales with ethnically and economically different populations than those on which such instruments were developed. Whether cognitive styles are a function of genetic factors, cultural factors or more likely some transactive relationship across both, the fact that evidence suggests the existence of variant intellectual patterns in American minorities necessitates a closer look at what current intelligence tests are actually measuring. Horn (Horn and Bramble, 1967; Horn and Cattell, 1966) offers a conceptualization of *Fluid* and *Crystallized* forms of intelligence that may partially explain verbal nonverbal discrepancies since tests designed to assess the latter form of IQ may be tapping fluid intelligence while the usual verbal intelligence items are more likely to be found on tests of crystallized intelligence. In general, Indian children have been extensively studied in a rather random manner with a wide variety of intelligence tests in which the evident complexity of this realm has been ignored. Summarizing intelligence in a single measure, IQ, probably leads to conceptualization of a unitary and simple basic capacity, something that cannot be maintained. It would not be amiss to suggest that intelligence testing as a tradition be suspended pending a closer research examination of the meaning and complexity of intelligence among different groups of Indian children. The role of culture, bilingualism and economic deprivation in the patterning of intelligence forms needs to be much better understood. The political-educational repercussions of current intelligence testing procedures plus their results and associated interpretations probably do not aid the potential development of both Indian children and their communities, and such practices must be countered.

Turning to the relationships given in Table 19 between the achievement and alienation measures, again we see a rather consistent pattern of negative correlations between these classes of variables. The rather moderate to high coefficients given in Table 2, page 97 between these intelligence and achievement measures partially explains the similarities noted in Table 19. The fairly substantial coefficients observed between ALIEN II and the CAT leads to the inference that conformity orientations are a definite component in achievement. This has been shown elsewhere (Gill and Spilka, 1965). The process might be rather complex in that a pattern of teacher expectancy for performance may result in reinforcing attention and classroom behavior that manifests itself in anti-alienative responses by the Indian child. A general improvement in educational achievement has a good likelihood of occurring. Support for this position has been provided a number of times (Meichenbaum, Bowers and Ross, 1969; Rosenthal and Jacobson, 1968). Studies of specific Indian children and teacher expectancies within the classroom situation constitute a very meaningful research problem that could contribute much to our understanding of educational success and failure within the reservation setting.

Educational achievement as measured by nationally standardized instruments raises the same basic problems encountered in the assessment of intelligence. The use of a summary indicator of total performance masks the very evident fact that a large number of different verbal and numerical skills are tapped by tests such as the CAT and ITED. We need to know which of these areas tie into nonintellectual variables such as Alienation and which seem independent of these possible correlates. As important as this is in the long run, it was felt that some limits had to be placed on the present investigation. It should, however, be noted that these achievement data are available from school records and probably can be collected without an unreasonable expenditure of time. Longitudinal studies of performance variability in different areas would also be of invaluable educational and psychological significance.

Examination of relationships for white Ss between Alienation and Intelligence and Achievement measures tends to reveal a pattern of correlations similar to those observed for the Indian students. The number of statistically significant coefficients is, however, markedly less for IQ. Only 7 relationships exceed the .05 level as compared to 26 for the Indian Ss. The two groups appear equivalent with regard to correlations between Alienation and the Achievement measures. The generally much higher IQ's that the whites obtain may reduce meaningful variation relative to non-intellectual correlates. This further suggests a need to understand the complexity of the intelligence measures and possible differences in Indian and white patterning of forms of basic capacity.

Summarizing the above findings, it may be concluded that this first hypothesis is generally supported. As Alienation and its components increase, IQ and educational achievement tend to decline.

Hypothesis IB: Alienation will be significantly greater among those who fail to continue in school (non-continuers) than in children who remain in attendance (continuers).

On the basis of support of hypothesis IA, Alienation was shown to relate to measures of IQ and Achievement. It is therefore necessary to consider the present hypothesis in relation to these latter indices. If independence among these measures had been demonstrated, Alienation could have been considered in isolation.

Table 20 provides the necessary comparative data to test this hypothesis and it is immediately apparent that support is present for the position expressed here. Alien factors I and V, Powerlessness and Psychosocial Isolation, do not show any real variation relative to school continuation either by grade breakdowns or over all grades. Factor II, the Protestant Ethic orientation, reveals for grades 7 and 8 and over all levels, that those who continue in school tend to be significantly more hopeful and conformist in orientation than those who do not remain in school. Factor III, Meaninglessness, appears to discriminate between the two groups for grades 9 through 12 and over all grades. Apparently those who do not continue their education perceive their life situation as more meaningless than those who stay in the school situation.

It it interesting to observe that the difference between the two groups on Factor IV, an hopeful friendly outlook, is significant at the .05 level for the 9th through 12th grades. The difference suggests a more positive view on the part of those who do not continue in school and at first glance this runs counter to the hypothesis. It is possible that this is a chance finding, but one should remember that in a pilot study (Spilka and Bryde, 1965) the Dean measure of social isolation increased through highschool with grade level. The items in

Table 20

Indian Continuers vs. Non-Continuers on Intelligence, Achievement, Alienation and Associated Variables

Grades 7-8	Non-Continuers			Continuers			
Variables	Mn	SD	N	Mn	SD	N	F
Sex[1]	.51	.50	49	.54	.50	311	<1
Blood	6.8	1.68	49	6.1	2.08	307	5.051*
Intelligence							
L-T-NV-IQ	92.3	14.03	35	97.1	14.27	202	3.361
" V-IQ	88.8	11.95	35	94.5	10.41	202	8.456**
" T-IQ	90.5	12.13	35	95.8	11.00	202	6.550*
K-F-IQ				95.6	13.36	78	
Achievement							
CAT-RAW	203.1	56.90	42	219.6	47.22	237	4.050*
-GP	7.3	1.44	45	7.6	1.12	287	2.161
-%-ile	33.1	27.65	45	48.2	24.05	287	14.580**
Alien							
Factor Scales							
I	20.7	6.83	49	21.3	7.28	311	<1
II	23.6	5.71	49	20.1	6.47	311	12.458**
III	10.0	3.80	49	11.0	4.33	311	2.319
IV	7.0	2.84	49	7.1	3.20	311	<1
V	10.9	3.67	49	11.6	3.92	311	1.561
VI	16.6	8.72	49	19.5	9.69	311	3.653
Theoretical	173.6	22.60	42	160.4	30.11	267	7.354**

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[1] These values are based on a code of 0 to designate males and 1 to designate females.

*Indicates a difference significant at the .05 level.
** " " " " " " .01 " .

Table 20 (Continued)

Grades 9-12	Non-Continuers			Continuers			
Variables	Mn	SD	N	Mn	SD	N	F
Sex^1	.49	.50	59	.50	.50	334	<1
Blood	6.4	2.10	59	5.7	2.16	333	4.673*
Intelligence							
L-T-NV-IQ	99.2	15.37	36	105.1	12.73	125	5.377*
" V-IQ	90.6	10.15	37	97.6	12.99	130	8.937**
" T-IQ	94.8	11.78	36	101.5	11.54	123	9.228**
K-F-IQ	93.9	14.79	30	96.4	12.04	220	1.071
Achievement							
ITED-SS	8.5	3.18	48	11.1	4.11	303	17.205**
-%-ile	28.4	16.20	48	36.7	20.52	303	6.971**
Alien							
Factor Scales							
I	21.7	7.47	59	22.6	7.35	334	<1
II	18.3	5.33	59	18.3	5.30	334	<1
III	11.7	4.47	59	14.1	4.49	334	15.037**
IV	6.6	2.79	59	7.5	3.03	334	4.187*
V	12.1	4.53	59	12.6	3.81	334	<1
VI	18.5	9.18	59	21.6	9.00	334	5.642*
Theoretical	157.4	30.58	55	153.8	32.04	325	<1
Grades 7-12							
Sex^1	.50	.50	102	.52	.50	640	<1
Blood	6.6	1.94	108	5.9	2.13	640	9.264**
Intelligence							
L-T-NV-IQ	95.8	15.13	71	100.2	14.25	327	5.299*
" V-IQ	89.7	11.10	72	95.7	11.59	332	15.842**
" T-IQ	92.7	12.15	71	98.0	11.57	325	11.843**
K-F-IQ	94.6	14.79	30	96.1	12.41	298	<1

Table 20 (Continued)

Grades 7-12	Non-Continuers			Continuers			
Variables	Mn	SD	N	Mn	SD	N	F
Alien							
Factor Scales							
I	21.3	7.20	108	22.0	7.35	645	<1
II	20.7	6.11	108	19.2	5.96	645	5.955*
III	10.9	4.26	108	12.6	4.67	645	12.678**
IV	6.8	2.82	108	7.3	3.12	645	2.240
V	11.6	4.21	108	12.1	3.90	645	1.806
VI	17.7	9.02	108	20.6	9.40	645	8.747**
Theoretical	164.4	28.56	97	156.8	31.36	592	5.086*

the present scale are similar to those found in the Dean instrument. This early finding led to the inference that school continuation tended to split the student off from his peers, hence apparent isolation, loss of friendliness, etc. The present result, holding as it does, only for the highschool grades may support this previous observation. Those who fail to remain in the school setting very possibly have more positive social (friendly) perspectives than their more isolated counterparts who continue their education. In one sense then, non-continuers would be less alienated, a tendency countering the hypothesis; however, the cost of maintaining good peer relationships may be termination of education. An often heard remark by educational authorities on the reservation concerns such a peer pressure to withdraw from school. Though the theory espoused here is a transactive one suggesting that non-continuation of schooling is a function of the individual student, his family, peers, teachers, and the school situation in both its general and specific aspects, Alien Factor IV may be primarily tapping the individual-peer components of this complex.

Factor VI, Normlessness, also differentiates between the two groups, but only for grades 9 through 12 and over all levels. The difference is in line with the prediction that non-continuers would perceive their circumstances as more normless than those who continue their education. This makes good sense in that the school is an institution that stresses the viability of cultural norms and attempts to establish these within its own confines. Those who believe that there exists a meaningful or normful situation are possibly students who are successful in approximating these standards and tend to be rewarded for their actions, hence they become educational continuers. Non-continuers may feel that they try hard to conform to school norms, but because of repeated failure see the problem in the norms not in themselves and their total situation. It does, of course, reside in both. Comparisons between the continuers and non-continuers on IQ and Achievement measures could support this contention.

In terms of the total Theoretical Alienation measure, the above trends hold for grades 7 and 8 and over all levels. Though not significant, the difference observed for grades 9 through 12 is also in the expected direction. In absolute values, fairly large differences obtain between the continuers and non-continuers with the former demonstrating markedly greater evidences of alienation.

Some possible reasons for the greater alienation of the non-continuers may be inferred from comparisons of the two groups on the tests of intelligence and achievement. For all grade levels on almost all measures, the continuers score significantly higher than their non-continuing colleagues on IQ and achievement. Some of this variation is quite graphic with continuers showing IQ's at or above the national norms and non-continuers at the bottom of the normal range. In this writer's opinion such differences may be intellectually relevant at the upper levels in highschool; however, they are not fully convincing as explanation for non-continuation. The differences, especially on the ITED in achievement, seem much more compelling and it is possible that whatever non-intellectual factors adversely affect school continuation, these probably influence educational achievement more than do the IQ differences observed.

Some further insight into what is occurring here may be gained from examination of Table 21. Here continuers and non-continuers are compared across grade levels and we are led to infer that different kinds of children remain in school or fail to continue at the various grade levels studied here.

Relative to Alienation, those who do not continue in school at the seventh and eighth grade levels appear to be more alienated than those in similar straits during the ninth through twelfth grades. The former are shown to be less conformist and Protestant Ethic oriented (Alien II), tend to perceive their total situation as more meaningless (Alien III), and in toto appear more alientated in general (Theoretical Alien). At first glance, the lower IQ's obtained by non-continuers in grades 7 and 8 might appear worthy of comment; however, these

Table 21

Comparisons of Continuers and Non-Continuers
Over Grade Levels for
Intelligence, Alienation and Associated Variables

Non-Continuers	Grades 7-8			Grades 9-12			
	Mn	SD	N	Mn	SD	N	F
Sex[1]	.51	.50	49	.49	.50	59	<1
Blood	6.8	1.68	"	6.4	2.10	"	1.647
Intelligence							
Lorge-Thorndike							
Non-Verbal	92.3	14.03	35	99.2	15.37	36	3.827
Verbal	88.8	11.95	"	90.6	10.15	37	<1
Total	90.5	12.14	"	94.8	11.78	36	2.164
Kuhlmann-Finch				93.9	14.79	30	
Alien							
Factor Scales							
I	20.7	6.83	49	21.7	7.47	59	<1
II	23.6	5.71	"	18.3	5.33	"	24.221**
III	10.0	3.80	"	11.7	4.97	"	3.943*
IV	7.0	2.84	"	6.6	2.79	"	<1
V	10.9	3.67	"	12.1	4.53	"	2.335
VI	16.6	8.72	"	18.5	9.18	"	1.143
Theoretical	173.6	22.60	42	157.4	30.58	55	8.154**

[1] These values are based on a code of 0 to designate males and 1 to designate females.

*Indicates a difference significant at the .05 level
** " " " " " " .01 "

Table 21 (Continued)

Continuers	Grades 7-8			Grades 9-12			
	Mn	SD	N	Mn	SD	N	F
Sex[1]	.54	.50	311	.50	.50	334	1.374
Blood	6.1	2.08	307	5.7	2.16	333	6.744**
Intelligence							
Lorge-Thorndike							
Non-Verbal	97.1	14.27	202	105.1	12.73	125	26.401**
Verbal	94.5	10.41	"	97.6	12.99	130	5.681*
Total	95.8	11.00	"	101.5	11.54	123	19.701**
Kuhlmann-Finch	95.6	13.36	83	96.4	12.04	220	<1
Alien							
Factor Scales							
I	21.3	7.28	311	22.6	7.35	334	5.533*
II	20.1	6.47	"	18.3	5.30	"	15.325**
III	11.0	4.33	"	14.1	4.49	"	78.257**
IV	7.1	3.20	"	7.5	3.03	"	3.369
V	11.6	3.92	"	12.6	3.81	"	9.220**
VI	19.5	9.69	"	21.6	9.00	"	8.065**
Theoretical	160.4	30.11	267	153.8	32.04	325	6.693**

do not significantly differ from those of their counterparts in grades 9 through 12.

Inspection of Table 21 for the data on continuers reveals a pattern of significant differences across both the alienation and intelligence domains that is relevant. On six of the seven Alienation measures students who continue in the seventh and eighth grades appear more alienated than those in the ninth through the twelfth grades. Intelligence-wise the latter score significantly higher on the subscales and total scale of the Lorge-Thorndike tests. It may be hypothesized that these differences appear so sharp and clear because the continuer group in grades seven and eight contain many who are likely to be out of school sometime during their highschool career. This needs checking and such is now in progress. If this hypothesis can be confirmed it will validate the use of these instruments for the prediction of school continuation. One might then be able to identify those who have a high probability of not carrying through their secondary education. This will permit the development and application of counter measures by the school authorities to reduce non-continuation. The question then arises whether identification by the seventh grade is early enough to reverse the destructive processes that raise alienative barriers between the child and the school.

Hypothesis IC: Alienation will relate positively to degree of Indianness (blood).

1. As degree of Indianness increases, indices of educational achievement and intelligence will decline.
2. Degree of Indianness will relate positively to non-continuation in school.

To assess these hypotheses correlations were computed between degree of Indian "blood" (after this the (") marks will be understood) and all relevant measures. These data are provided in Table 22. Furthermore, Indian blood groups are compared on all variables by means of the Analysis of Variance. Table 23 offers this information by grade levels and degree of Indian blood presented in quarters.

Relative to the four intelligence measures, low but statistically significant negative associations obtain between degree of Indianness and IQ (Table 22). Examination of the various blood groups for all Indian Ss also demonstrates that IQ reduces in an orderly and consistent manner with an increase in Indianness. Nevertheless the highest IQ's observed, those of the one-quarter blood group, are only five to six points above full-blood student IQ's. All mean IQ's also fall within the mid- or normal range for this index. In addition, for all

Table 22

Correlations of Intelligence, Achievement and Alienation Measures With Degree of Indian "Blood"

	r[1]	N
Intelligence		
L-T-NV-IQ	-168**	396
V-IQ	-201**	402
T-IQ	-209**	394
KF-IQ	-198**	333
Achievement		
ITBS	221	19
CAT-RAW	-177**	279
" -GP	-152*	332
-%-ILE	-128*	"
ITED-SS	-222**	348
-%-ILE	-189**	"

	r[1]	N
Alienation		
I	-074*	746
II	117**	"
III	-256**	"
IV	032	"
V	-136**	"
VI	-178**	"
Theoretical	194**	683

[1] Decimal Points Omitted
*Significant at .05 level
** " " .01 "

Table 23

Comparison of Indian "Blood" Groups for

Intelligence, Achievement and Alienation by Grade Levels

Degree of Indian "Blood"

Grades 7-8	1/4			1/2			3/4			4/4			
	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	F
Intelligence													
L-T-NV-IQ	103.8	8.49	10	99.0	12.07	34	98.4	15.81	34	94.9	14.47	159	2.064
" V-IQ	97.0	9.10	"	96.2	11.00	"	96.4	10.34	"	92.3	10.75	"	2.595
" T-IQ	100.4	7.46	"	97.6	9.96	"	97.4	11.88	"	93.6	11.40	"	2.711*
Achievement													
CAT-RAW	239.4	53.04	12	226.3	44.86	40	227.3	52.92	42	211.3	47.78	185	2.788*
" -GP	7.8	1.13	23	7.7	1.12	58	7.8	1.24	48	7.4	1.14	203	2.869*
" -%-ILE	48.8	27.17	"	51.6	23.88	"	49.6	25.75	"	43.5	24.67	"	2.057
Alien I	22.9	5.90	26	21.6	8.37	68	20.5	7.47	51	21.1	6.93	211	<1
" II	18.6	5.90	"	19.0	6.54	"	21.2	6.84	"	21.2	6.31	"	3.072*
" III	13.0	4.12	"	12.5	4.63	"	10.9	4.54	"	10.1	3.90	"	7.961**
" IV	7.4	2.83	"	6.9	2.88	"	7.9	3.15	"	6.8	3.24	"	1.561
" V	11.9	3.93	"	12.2	3.74	"	11.8	4.11	"	11.2	3.87	"	1.264
" VI	22.6	8.89	"	20.6	9.14	"	19.8	10.10	"	18.0	9.37	"	2.863*
" Theor.	152.4	29.64	25	152.5	33.12	60	168.5	29.38	46	165.1	27.27	175	4.413**

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*Significant at .05 level
** " " .01 "

Table 23 (Continued)

Degree of Indian "Blood"

Grades 9-12	1/4			1/2			3/4			4/4			
	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	F
Intelligence													
L-T-NV-IQ	101.9	9.15	10	106.9	10.35	30	104.8	14.93	32	102.0	13.71	87	1.195
" V-IQ	100.6	13.43	11	98.1	9.86	"	96.3	13.90	34	94.1	12.19	90	1.476
" T-IQ	101.2	9.61	10	102.5	9.04	"	101.3	13.30	32	97.8	11.65	85	1.578
K-F-IQ	99.2	13.57	37	97.7	11.48	68	95.8	11.66	50	94.2	12.78	106	1.728
Achievement													
ITED-SS	11.8	4.45	34	11.7	3.86	88	11.0	4.46	69	9.8	3.70	157	5.258**
-%-ILE	41.9	22.16	"	37.8	19.56	"	37.2	21.92	"	31.6	17.70	"	3.848**
Alien I	24.2	8.06	37	22.3	7.58	94	22.6	7.32	75	22.2	7.14	184	<1
" II	16.9	4.90	"	19.2	5.80	"	17.9	4.88	"	18.3	5.21	"	1.909
" III	15.0	4.32	"	14.8	4.39	"	14.4	3.61	"	12.7	4.82	"	6.838**
" IV	6.2	2.51	"	7.5	2.99	"	7.1	2.68	"	7.6	3.10	"	2.374
" V	13.8	4.26	"	12.9	3.70	"	12.6	3.93	"	12.1	3.89	"	2.352
" VI	22.3	9.38	"	23.2	9.13	"	23.4	7.62	"	18.9	9.00	"	7.466**
" Theor.	140.6	38.09	36	152.2	35.34	"	151.5	26.90	73	159.0	27.91	174	3.935**

Table 23 (Continued)

Degree of Indian "Blood"

Grades 7-12	1/4			1/2			3/4			4/4			
	Mn	SD	N	Mn	SD Q	N	Mn	SD	N	Mn	SD	N	F
Intelligence													
L-T-NV-IQ	102.8	8.88	20	103.0	11.87	64	101.5	15.72	66	97.4	14.60	246	3.790*
" V-IQ	98.9	11.70	21	97.0	10.60	"	96.4	12.25	68	92.9	11.32	249	4.233**
" T-IQ	100.8	17.21	20	100.0	9.89	"	99.3	12.74	66	95.1	11.66	244	5.280**
KF-IQ	99.8	13.67	41	97.8	10.94	93	95.7	11.98	61	93.4	13.30	134	3.640*
Alien I	23.6	7.28	63	22.2	7.72	162	21.7	7.45	126	21.6	7.05	395	1.566
" II	17.6	5.40	"	18.9	5.95	"	19.2	5.98	"	19.9	6.00	"	3.140*
" III	14.2	4.35	"	14.0	4.52	"	13.0	4.35	"	11.3	4.53	"	17.974**
" IV	6.7	2.70	"	7.2	2.93	"	7.4	2.90	"	7.2	3.19	"	<1
" V	13.0	4.23	"	12.7	3.70	"	12.2	4.02	"	11.6	3.90	"	4.276**
" VI	22.4	9.18	"	22.2	9.11	"	21.9	8.89	"	18.4	9.21	"	10.425**
" Theor.	145.4	35.36	61	151.1	32.94	154	158.0	30.66	119	162.1	27.76	349	8.118**

degrees of Indian blood, Lorge-Thorndike Nonverbal IQ's are about five points above those for the verbal scale. Grades seven and eight and nine through 12 generally show the same trends for IQ to go up as degree of Indianness reduces; however, only the Lorge-Thorndike measure of total IQ reaches statistical significance for grades seven and eight, and none of these variables suggests real variation for grades 9 through 12.

A similar pattern of relationships holds for Indianness and educational achievement. As the former increases, the latter declines. Table 23 verifies this association via significant F-ratios among the blood groups. The ITED probably shows the most graphic change with the one-quarter blood Ss showing a mean percentile equivalent of 41.9 while the full-blood group manifests an average percentile of only 31.6. Apparently by the time Indian youth reach highschool they have dropped fairly well below the national median in educational performance and this is most severe for the full-blood pupils. As mentioned earlier, the educational weaknesses revealed here are possibly more serious than might be expected from the intelligence indicators alone.

The above findings parallel the Alienation results. Correlations tend to be generally low, but are unlikely to have occurred on the basis of chance. The relatively stronger coefficient obtained between degree of Indian blood and Alien III, meaninglessness, is of particular interest, and may imply that the more Indian school children are, the less sensible and relevant are white social and educational structures among others. A rather orderly growth in these feelings of meaninglessness can be observed within and over all grade levels. Alien Factors I and IV reveal no significant variation for any of the group breakdowns, and Alien V, psychosocial isolation, appears pertinent, but only for the blood groups over all grades. Alien II, however, reaches significance for grades seven and eight and over all levels. This last effect suggests that conformity to white values and standards grows as degree of Indianness declines. Here, of course, may be indications of past exposure to Anglo-American traditions.

Conceptions of Meaninglessness have already been shown to correlate positively (Table 5, Page 116) with Normlessness, though with less than 10 percent common variance. Conceptually the two outlooks may be more strongly united through the mediation of a variable such as Indianness, thus explaining the consistent finding here that Alien VI, Normlessness, also increases with degree of Indian blood. Lastly, Theoretical Alienation graphically elevates in a uniform manner with Indianness.

Again the data point to an interpretation based on a transaction of cognitive and non-intellectual factors. As Indianness increases, alienation from white expectations and norms grows with probable attendant signs of inability to cope with the achievement values and contents of the general-American school system.

Undoubtedly we are perceiving a combination of socioeconomic and cultural factors, an idiosyncratic patterning of poverty and Indian elements that work to the detriment of Indian children in a traditional Anglo-American educational setting. This was discussed previously in the Chapter II.

Turning now to the question of Indianness and school continuation, information on this issue is found in Tables 20 and 21. At all grade levels those who remain in school manifest significantly lower Indian blood quanta than their non-continuing counterparts. We have already observed that this pattern ties meaningfully to Intelligence, Achievement and Alienation. It is quite noteworthy that non-continuers in the seventh and eighth grades are blood-wise equivalent to those who do not continue their education in grades nine through twelve. Comparing continuers over grade levels still shows a higher mean degree of Indianness for those in the lower grades, a difference which we may hypothesize will disappear when the full extent of non-continuation takes place.

We may briefly summarize the findings relative to Hypothesis IC and its adjuncts. Degree of Indianness is positively associated with alienation, a lowering of performance on standard measures of intelligence and educational achievement plus a higher likelihood of non-continuation of schooling.

Hypothesis ID: Alienation will reduce with increasing school grade.

Information bearing on this hypothesis has already been partially discussed. Continuers in grades nine through 12 were shown to be less alienated and more conformist than Continuers in grades seven and eight (see Table 21). Disregarding this distinction based on school continuation among the Indian pupils leads to a more gross comparison and is only offered in Table 24 for speculative purposes.

Relative to intelligence, Indian pupils in high school score significantly higher than their fellows in grades 7 and 8. This again leads to the speculation that there may be some selection of Indian youth to continue their education on the basis of capacity. No similar trend is observed for whites on the total scale score for the Lorge-Thorndike test. It was not possible to obtain enough subscale IQ's to make valid comparisons of these measures. The Henmon-Nelson IQ difference for whites, though significant at the .05 level, is unexpected, and may be a chance finding.

Paralleling these results are those on the measures of Alienation. Essentially no meaningful variation occurs across grade levels among whites while the Indian Ss show statistical significance on six of the seven Alienation scores. Summarizing these shifts, it is evident that the tendency is for Indian

Table 24

Indians and Whites, Grades 7-8 vs 9-12 on Intelligence, Alienation and Selected Basic Variables

Indians	Grades 7-8			Grades 9-12			
Variables	Mn	SD	N	Mn	SD	N	F
Sex[1]	.53	.50	360	.50	.50	393	1.232
Blood	6.2	2.02	356	5.8	2.15	392	6.870**
Intelligence							
L-T-NV-IQ	96.4	14.34	237	103.8	13.59	161	27.144**
" V-IQ	93.6	10.84	"	96.0	12.75	167	4.020*
" T-IQ	95.0	11.33	"	100.0	11.97	159	17.331**
KF-IQ	95.6	13.28	83	96.0	12.44	251	<1
Alien I	21.2	7.23	360	22.5	7.37	393	5.971*
II	20.6	6.48	"	18.3	5.31	"	28.085**
III	10.9	4.28	"	13.8	4.57	"	81.116**
IV	7.1	3.15	"	7.4	3.01	"	1.778
V	11.5	3.90	"	12.5	3.93	"	12.311**
VI	19.1	9.61	"	21.1	9.10	"	8.549**
Theoretical	162.2	29.55	309	154.3	31.86	380	11.349**
Whites							
Sex[1]	.53	.50	202	.50	.50	649	<1
Intelligence							
L-T-NV-IQ	106.2	10.78	(4)	110.9	12.89	129	——[2]
" V-IQ	105.8	9.34	(4)	110.6	15.41	"	——[2]
" T-IQ	108.4	13.04	81	108.2	13.12	363	<1
HN-IG	110.3	15.23	118	105.3	17.76	90	4.260*
Alien I	25.0	8.59	170	25.3	7.50	540	<1
II	18.1	6.21	"	17.4	5.89	"	1.495
III	17.0	4.41	"	17.2	3.97	"	<1
IV	6.6	3.37	"	6.6	3.13	"	<1
V	12.5	4.42	"	13.4	4.15	"	6.042*
VI	12.8	3.39	"	12.7	3.25	"	<1
Theoretical	131.4	38.21	167	130.4	34.87	545	<1

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[1] Male = 0, Female = 1

[2] F - ratio not computed because of white sample size

* Significant at .05 level

** " " .01 "

youth in high school to feel less powerless (Alien I), be more conformist and Protestant Ethic oriented (Alien II), see their situation as more meaningful (Alien III), be less psychosocially isolated (Alien V), perceive more normfully relevant circumstances (Alien VI), and overall to be less alienated than seventh and eighth graders. The only measure on which the whites show any difference is Alien V, and here the direction is similar to that for the Indians, leading to the conclusion that children in high school feel less psychosocially isolated than those in lower grades.

Implied in these findings is the probability that the school and life situations of the white are perceived as fairly constant from the seventh through the 12th grades. This does not appear to be true for the Indian student, or at least, a selection may exist to pick those to remain in school who possess more positive outlooks and somewhat greater basic ability. These tendencies further suggest that the selection process emphasizes a "white-orientation" by Indian Ss who continue their education. Cultural and socio-economic factors are undoubtedly active here.

In sum, Hypothesis ID seems to be supported for the Indian youth but not for the white students. The grade divisions employed may be too gross to show the latter and this is roughly suggested by our early data utilizing subjects from this study plus a pilot investigation. These are presented below as an intimation of what might be occurring; however, detailed analysis of these observations has not been carried out, and the tentative nature of this information is stressed.

Table 25: Mean Theoretical Alienation Scores by Grades for Indians and Whites

Grade	Indian		White	
	Mn	N	Mn	N
7	162.4	157	132.7	74
8	159.6	172	136.5	94
9	161.3	147	134.2	157
10	154.7	98	132.1	128
11	144.5	66	128.0	100
12	146.3	80	123.7	121

The relatively greater reduction of the Alienation scores among the Indians is apparent; yet, there is still some indication of a decline among the white Ss. One would, in all likelihood, theorize an antinimous relationship between continuation in school and a reduction in Alienation. Decline in the latter should accompany relative success in school plus perception of the utility and significance of education which in turn could favorably influence general outlook.

Hypothesis IE: Whites will generally show lower levels of Alienation than Indians.

Continuing the process of comparing Alienation and associated variables as in the previous analyses, Table 26 provides data germane to the assessment of this hypothesis. Highly significant and consistent differences hold within and across all grade levels for Intelligence. In all instances the whites demonstrate average IQ's ranging up to 14 or more points or one standard deviation above those of the Indian Ss. Subjectively these differences seem slightly greater for the Lorge-Thorndike verbal than non-verbal IQ's. A like patterning of ability variation is evidenced by the ITED scores. Here whites achieve about 25 percentile points above their Indian counterparts.

The same trends toward a more negative picture of the Indian pupil also obtain on the Alienation scales. Most of these discriminate between the two groups to the detriment of the Indian Ss on all grade levels. Of the 21 scale comparisons by grade, 20 are statistically significant, 18 at the .01 level. All except three indicate the greater alienation of the Indian students. The discrepancy occurs on Alien VI, Normlessness, which connotes rather uniformly that the white pupils perceive standards of right and wrong to be less viable than do Indians. Examination of the items on this scale may provide a hint of what is happening. The questions generally suggest a rather

Table 26

Indians vs Whites by Grades

For Intelligence, Achievement and Alienation

Grades 7-8	Indian			White			
Variables	Mn	SD	N	Mn	SD	N	F
Sex	.53	.50	360	.53	.50	202	<1
Intelligence							
L-T-NV-IQ	96.4	14.34	237	106.2	10.78	(4)	____[2]
" V-IQ	93.7	10.84	"	105.8	9.34	(4)	____[2]
" T-IQ	95.0	11.33	"	108.4	13.04	81	938.621**
Alien I	21.2	7.23	360	25.0	8.59	170	28.635**
II	20.6	6.48	"	18.1	6.21	"	18.132**
III	10.9	4.28	"	17.0	4.41	"	228.071**
IV	7.1	3.15	"	6.6	3.37	"	2.182
V	11.5	3.90	"	12.5	4.42	"	6.119*
VI	19.1	9.61	"	12.8	3.39	"	68.072**
Theoretical	162.2	29.55	309	131.4	38.21	167	95.035**
Grades 9-12							
Sex	.50	.50	393	.50	.50	649	<1
Intelligence							
L-T-NV-IQ	103.8	13.59	161	110.9	12.89	129	20.490**
" V-IQ	96.0	12.75	167	110.6	15.41	"	78.344**
" T-IQ	100.0	11.97	159	108.2	13.12	363	134.791**
KF-IQ	96.1	12.44	251	109.0	14.50	74	57.463**
Achievement							
ITED-SS	10.7	4.10	351	15.8	5.96	514	189.916**
" -%-ILE	35.6	20.18	"	60.1	25.81	"	222.418**
Alien I	22.5	7.37	393	25.3	7.50	540	32.137**
II	18.3	5.31	"	17.4	5.89	"	5.621*
III	13.8	4.57	"	17.2	3.97	"	151.779**
IV	7.4	3.01	"	6.6	3.13	"	15.023**
V	12.5	3.93	"	13.4	4.15	"	10.882**
VI	21.1	9.10	"	12.7	3.25	"	395.001**
Theoretical	154.3	31.86	380	130.4	34.87	545	113.006**

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[1] Male = 0, Female = 1

[2] F not computed because of white sample size

* Significant at .05 level

** " " .01 "

Table 26 (Continued)

Grades 7-12	Indian			White			
Variables	Mn	SD	N	Mn	SD	N	F
Sex	.51	.50	753	.51	.50	851	<1
Intelligence							
L-T-NV-IQ	99.4	14.50	398	110.8	12.86	133	64.947**
" V-IQ	94.6	11.73	404	110.4	15.29	"	154.300**
" T-IQ	97.0	13.10	396	108.2	13.11	444	154.542**
KF-IQ	95.9	12.65	333	109.0	14.50	74	61.602**
Alien I	21.9	7.33	753	25.2	7.77	710	72.048**
II	19.4	6.01	"	17.6	5.98	"	34.098**
III	12.4	4.66	"	17.2	4.08	"	431.454**
IV	7.2	3.08	"	6.6	3.19	"	14.799**
V	12.0	3.95	"	13.2	4.24	"	27.925**
VI	20.1	9.40	"	12.7	3.28	"	398.375**
Theoretical	157.9	31.10	689	130.6	35.70	712	232.476**

jaundiced view of legitimate avenues to success. One may ask if whites, who are well steeped in the realities of American culture see that competition and high achievement lead necessarily to the abrogation of rules and regulations, and that one has to act in this manner to get ahead. The "dog eat dog" philosophy of these items may be more acceptable to the whites than the Indian Ss, and may further be antithetic to Indian cultural perspectives. This finding and interpretation merits considerable further scrutiny, since it would possibly follow that Indian Continuers should be more like whites than Non-Continuers, and this, as we have seen, is not true. Another hypothetical explanation for this finding is that the Indian Continuer identifies much more strongly than the white pupil with the ideals of the general-American tradition of success via the legitimate channel. This could also resolve some of the possible cognitive dissonance which may be present on the part of Indian youth who continue their education. As already mentioned, this observation, if further verified, may provide an interesting insight into the outlooks of Indian and white pupils relative to the role of education and how our dominant culture appears to children of different groups.

It may be argued that comparing Indians and whites in toto gives an unfair and biased picture of the Indian for we are including under the latter both Continuers and Non-Continuers. Attempts to locate or define white pupils similarly were not successful. School authorities usually remarked that very few left school and that these were often transfer students. No records seemed to be kept on this issue in most of the schools, or, at least, such was indicated. The inference, however, is still present that a more accurate comparison of Indian and white students would result if only the Continuers among the former were matched with the whites. This was done and may be seen in Table 27.

This selection of Continuers from the total Indian sample does not appear to improve the position of the Indian group relative to the white students. The findings reported in Table 26 almost match those in Table 27 perfectly. On all measures of intelligence and Achievement the whites score appreciably higher than their Indian counterparts on each grade level and overall. A similar situation obtains with regard to the measures of Alienation. On all of these indices, with the exception of Alien VI, noted earlier, the Indian children appear more alienated. Again, the white S̲s score as significantly more Normless in outlook (Alien VI) than the Indian youth. The previous explanatory suggestions for this seeming reversal also hold here.

Summary of Alienation Findings

In general, all of the hypotheses gained considerable support, therefore it may be concluded that:

Table 27

Indian Continuers vs Whites

by Grade Level

On Intelligence, Achievement, Alienation and Selected Variables

Grades 7-8	Indian Continuers			Whites			
Variables	Mn	SD	N	Mn	SD	N	F
Sex[1]	.54	.50	311	.53	.50	202	<1
Intelligence							
L-T-NV-IQ	97.1	14.27	202	106.2	10.78	(4)	—[2]
" V-IQ	94.5	10.41	"	105.8	9.34	"	—[2]
" T-IQ	95.8	11.00	"	108.4	13.04	81	42.842**
KF-IQ	95.6	13.28	83				
Alien I	21.3	7.28	311	25.0	8.59	170	22.652**
" II	20.1	6.47	"	18.1	6.21	"	11.066**
" III	11.0	4.33	"	17.0	4.41	"	206.138**
" IV	7.1	3.20	"	6.6	3.37	"	2.506*
" V	11.6	3.92	"	12.5	4.42	"	4.938*
" VI	19.5	9.69	"	12.8	3.39	"	121.473**
" Theor.	160.4	30.11	267	131.4	38.21	167	69.284**
Grades 9-12							
Sex	.50	.50	334	.50	.50	649	<1
Intelligence							
L-T-NV-IQ	105.1	12.73	125	110.9	12.89	129	13.026**
" V-IQ	97.6	12.99	130	110.6	15.41	"	108.159**
" T-IQ	101.5	11.59	123	108.2	13.12	363	28.684**
KF-IQ	96.4	12.04	220	109.0	14.50	74	45.351**
Alien I	22.6	7.35	334	25.3	7.50	540	27.422**
" II	18.3	5.30	"	17.4	5.89	"	5.462*
" III	14.1	4.49	"	17.2	3.97	"	107.491**
" IV	7.5	3.03	"	6.6	3.13	"	7.853**
" V	12.6	3.81	"	13.4	4.15	"	8.512**
" VI	21.6	9.00	"	12.7	3.25	"	314.445**
" Theor.	153.8	32.04	325	130.4	34.87	545	101.556**

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[1] Male = 0, Female = 1

[2] F not computed because of sample size discrepancy

*Significant at the .05 level

** " " " .01 "

Table 27 (Continued)

Grades 7-12	Indian Continuers			Whites			
Variables	Mn	SD	N	Mn	SD	N	F
Sex	.52	.5	640	.51	.50	851	<1
Intelligence							
L-T-NV-IQ	100.2	14.2	327	110.8	12.86	133	60.303**
" V-IQ	95.7	11.5	332	110.4	15.29	"	99.958**
" T-IQ	98.0	11.5	325	108.2	13.11	444	130.231**
KF-IQ	96.1	12.41	303	109.0	14.50	74	49.690**
Alien I	22.0	7.35	645	25.2	7.77	710	60.707**
" II	19.2	5.96	"	17.6	5.98	"	24.311**
" III	12.6	4.67	"	17.2	4.08	"	369.820**
" IV	7.3	3.12	"	6.6	3.19	"	16.717**
" V	12.1	3.90	"	13.2	4.24	"	24.796**
" VI	20.6	9.40	"	12.7	3.28	"	410.532**
" Theor.	156.8	31.36	592	130.6	35.70	712	198.841**

1. Feelings of alienation increase as intelligence and achievement decline. This pattern of relationships holds true for both Indians and whites, though the former group shows a stronger set of such associations.
2. Alienation tends to be significantly greater among those who fail to continue their education than among children who continue attending school. These findings were only evaluated on data obtained on the Indian children. Non-continuers also score lower on measures of intelligence and achievement than their associates who remain in school. Those who leave school in the seventh and eighth grades are equivalent to non-continuers in high school in intelligence, but tend to be less conforming and more alienated than the latter. Continuers through high school appear more intelligent and less alienated than continuers through the seventh and eighth grades. Additional non-continuation on the part of the latter is expected to occur and the two groups should eventually be equivalent.
3. As degree of Indianness (blood) increases, intelligence and achievement measures decline, and the probability of non-continuation of education increases.
4. As Indian children progress through school, Alienation scores tend to reduce and IQ increases. This is probably due to both a selection process and possibly a circular pattern of supportive reinforcement of performance and attitudes that meet approval

within the school setting. Essentially no similar trends are observed among the white students.

5. When white youth are compared with Indians either in toto by grade levels or with the latter who continue their schooling, the whites score significantly higher in Intelligence and Achievement and lower in Alienation and its components. One exception is on the Normlessness scale where whites appear to deny the meaningfulness of legitimate avenues to success much more than do Indians. This finding requires further study.

CHAPTER VI

Results and Discussion III: Child-School Relationships

Achievement Motivation

Hypothesis IIA: As evidence of achievement motivation increases, measured school achievement and intelligence will also rise.

Included under the rubric, achievement motivation, are three kinds of measures: Five objective attitude-type scales identified by the abbreviation, Achmot, with a specific index; three of the TAT cards which yield a total score here denoted as n-ach, but modified from the work of Veroff, Atkinson, Feld and Gurin (1960); and four means of scaling occupations, possibly assessing occupational aspiration. The last devices are quite complex involving desired social status in occupational terms, recognition of the existing state of affairs, knowledge and ignorance about occupations, the job market, etc. Tables 28 and 29 present data to assess the above hypothesis.

The Achmot scales are apparently independent of the measures of intelligence except for a few significant coefficients. That between the verbal scale of the Lorge-Thorndike and Achmot III for Indians parallels a similar relationship of Achmot III with the Kuhlmann-Finch. These would suggest that as IQ goes up so does a liking of reading plus a willingness to read and expend effort to accomplish work. Three borderline significant associations obtain for the white Ss, two with Achmot I; these are with the Total scale of the Lorge-Thorndike and the Kuhlmann-Finch. The first is meaningful suggesting that IQ positively relates to aspirations and drives to perform. The second relationship, that with the Kuhlmann-Finch, is in the opposite direction and cannot be reasonably explained. One significant correlation between Achmot III and the Henmon-Nelson is as theorized.

The Achmot measures correlate much more consistently with the indices of educational achievement. Generally these relationships are low but statistically significant, and appear more prominent among the Indian Ss. Of special note is the rather interesting pattern of associations with Achmot III, IV and the Theoretical Scale for the Indians. These fit the previously stated

Table 28

Correlations among Achievement Motivation, Intelligence and Achievement Measures

Indians
ACHMOT

r's	I	II	III	IV	Theor.
L-T-NV-IQ	046	050	029	-026	-060
" V-IQ	065	028	140**	009	-059
" T-IQ	060	047	-088	-011	069
KF-IQ	-060	060	158**	067	-098
ITBS	257	126	239	011	-093
CAT-Raw Sc.	-022	032	143*	-168**	-140*
" -GP	-030	049	187**	-110*	-155**
%-ile	-026	010	232**	-097	-172**
ITED-SS	030	107*	227**	156**	-062
" %-ile	043	041	182**	145**	-016

N's	I	II	III	IV	Theor.
L-T-NV-IQ	396	396	396	396	396
" V-IQ	402	402	402	402	402
" T-IQ	394	394	394	394	394
KF-IQ	334	334	334	334	334
ITBS	22	22	22	22	22
CAT-Raw Sc.	279	279	279	279	279
" -GP	332	332	332	332	332
%-ile	"	"	"	"	"
ITED-SS	349	349	349	349	349
-%-ile	"	"	"	"	"

* significant at .05 level
** " " .01 "

Table 28 (Continued)

Correlations among Achievement Motivation,

Intelligence and Achievement Measures

			Whites ACHMOT		
r's	I	II	III	IV	Theor.
L-T-NV-IQ	028	042	006	-043	081
" V-IQ	062	117	175	029	-054
" T-IQ	-129*	095	-016	004	-033
KF-IQ	265*	223	086	122	-183
HN-IQ	033	017	180*	204**	-056
ITED-SS	-206**	202**	-042	-040	-102*
" %-ile	-180**	118*	-127**	-109*	-009
MAT	-110	142	019	091	032
ITBS	-291*	014	299*	-189	-384**
N's					
L-T-NV-IQ	95	95	95	95	95
" V-IQ	"	"	"	"	"
" T-IQ	367	367	367	367	367
KF-IQ	71	71	71	71	71
HN-IQ	175	175	175	175	175
ITED-SS	430	430	430	430	430
" %-ile	"	"	"	"	"
MAT	135	135	135	135	135
ITBS	65	65	65	65	65

*Significant at .05 level
** " " .01 "

theory quite well. As the desire to read and valuation of work to accomplish one's goals increases, or, in general, as the motivation to achieve is internalized, educational performance increases.

Though there is some overlap of these findings with those observed for the white students, some indications of a different patterning are evident. Achmot I which was not relevant to the Indian youth is tied to the ITED scores only for the whites and not as hypothesized for both groups. Here high aspirations and drive are associated with a parallel expression on the ITED. Apparently Achmot II, work anxiety, also varies with the Iowa tests for the whites, and a like indication is present for the Indian sample, Concern and anxiety about work therefore do seem to relate constructively to educational performance. Another puzzling significant correlation in the direction opposite to that predicted and to the findings among the Indian youth shows up for the whites with Achmot III. This, of course, may be a chance result, for no intelligible explanation is readily apparent. A borderline significant coefficient is observed between Achmot IV and the ITED percentile, revealing a tendency among the Indian Ss, namely acceptance of a rigorous work ethic is likely to eventuate in higher educational achievement. Lastly, the Theoretical Achmot scale which related meaningfully for the CAT among the Indians, now finds a similar expression among the whites on the ITBS. Though the foregoing relationships are not as extensive or as large as hoped, where they manifest themselves, in the majority of instances they support the hypothesis that achievement motivation and signs of educational performance vary together in a positive manner. The fewer significant findings obtained with the measures of intelligence are confined to either the verbal subscale of the Lorge-Thorndike or instruments with a strong verbal coloring. They may reflect achievement motivation and educational achievement components of the Crystallized intelligence type (Horn and Cattell, 1966).

In Table 29, the n-ach and Occupational Aspiration measures are now evaluated against the measures of intelligence and achievement employed in Table 28. Relatively few of the correlations are significant for the Indians compared to a considerably greater number for the white Ss. Since the latter occur with the occupational aspiration scaling procedures, there is good reason to infer that the whole idea of job choice and realization is much more relevant for whites than Indians, hence these results.

Keeping in mind the great caution stated earlier regarding the n-Ach measure of achievement motivation, we see that the CAT does relate low and positively to this index, implying some validity to the n-ach measure for the Indian sample. Such relationships might have been expected more among the whites than Indians, since this instrument has been developed and tested primarily among whites. In the present study, none of the achievement measures are

Table 29

Correlations Among n-ACH, Occupational Aspiration, Intelligence and Achievement Measures

Indians

r's[1]	n-ACH	EOG	WORS	HN-I	HN-II
L-T-NV-IQ	097	005	-058	004	086
" V-IQ	050	-100	-160*	-045	158*
" T-IQ	088	-048	-117	-020	134
KF-IQ	081	-052	-068	-080	052
ITBS	-326	-313	-359	-366	319
CAT-RAW Sc.	132*	075	026	060	-057
" -GP	134*	048	024	034	-013
%-ile	040	015	-008	-006	038
ITED-SS	018	-185*	-229**	-152	116
" -%-ile	043	-186*	-247**	-183*	181*
N's					
L-T-NV-IQ	376	185	185	185	184
" V-IQ	382	188	188	188	187
" T-IQ	374	185	185	185	184
KF-IQ	319	194	195	195	195
ITBS	21	18	18	18	18
CAT-RAW Sc.	260	162	163	163	162
" -GP	312	207	209	209	208
" -%-ile	312	207	209	209	208
ITED-SS	332	150	150	150	150
" -%-ile	332	150	150	150	150

[1] Decimal points omitted

*Significant at .05 level

** " " .01 "

Table 29 (Continued)

Whites

r's[1]	n-ACH	EOG	WORS	HN-I	HN-II
L-T-NV-IQ	145	-292**	-325**	-242*	174
" V-IQ	258*	-420**	-404**	-397**	172
" T-IQ	125*	-315**	-322**	-274**	269**
KF-IQ	164	-382**	-346**	-439**	-006
HN-IQ	122	-104	-147	-084	146
ITBS	131	-162	-188	-209	193
ITED-SS	107	-344**	-328**	-327**	177**
" -%-ile	043	-303**	-337**	-308**	226**
MAT	069	-305**	-328**	-254**	286**
N's					
L-T-NV-IQ	77	82	83	83	83
" V-IQ	77	82	83	83	83
" T-IQ	314	300	301	301	301
KF-IQ	74	67	67	67	67
HN-IQ	104	107	107	107	107
ITBS	62	59	59	59	59
ITED-SS	295	335	336	336	336
" -%-ile	295	335	336	336	336
MAT	153	124	124	124	124

significantly associated with n-Ach, but the verbal and total scales of the Lorge-Thorndike are. Heckhausen (1967) cites five investigations with similar outcomes. The characteristics of the samples have their parallels in this work, in that tendencies for significant IQ-achievement motivation correlations increase as level of intelligence of the group rises, and is more likely to occur if the latter is in the upper half of the IQ distribution. This is true here for the white Ss, but not the Indian. Nevertheless significant associations between the n-Ach and the measures of achievement should have been demonstrated and were not. The unreliability of the N-Ach measure may be at fault here.

When obtaining the occupational aspirations of the Indian and white Ss, the subjective impression was gained that this task was much more difficult for the Indian children. As may be true of children, in general, they tend to take their occupational models from significant adults in their environment, thus among the Indians, extremely common responses were, rancher, teacher, nurse, etc. In contrast, the white children seemed to run the gamut of possible trade and professional specialties to which persons aware of the possibilities in our society could aspire. Some indication of this problem is suggested by the fact that only 53 percent of the Indian children even responded to this item while 68 percent of the whites answered it. Though the variance of the two groups is equivalent, the variety of occupations on which the scaling was accomplished appears markedly different. This may partially explain why only eight of the correlations between the occupational aspiration measures and IQ and achievement are significant for the Indians, but 25 are statistically relevant for the whites. Undoubtedly the quite high pattern of intercorrelations that exist among the occupational indices are influential here (see Table 3, p. 101), nevertheless equality among these for both groups does not obscure the considerable probability of more meaningful variation for the white youth.

Examination of the matrices presented in Table 29 reveals all significant correlations to be in the theorized direction. Of special note is the fact that the only intelligence measure involved for the Indians is the verbal scale of the Lorge-Thorndike and this may reflect achievement components more than simply IQ as basic intelligence. The remaining significant coefficients occur with the ITED and not with the CAT. Since the Iowa tests are given only in high school, it is possible that reality intrudes much more sharply by this time for the Indian youth than would be true in grades seven and eight. The high school student might also be in a better situation regarding occupational knowledge and thus be able to evaluate his chances for various positions more accurately.

The sparse results noted for the Indians are countered by the quite pervasive and consistent pattern observed for the white Ss. As IQ goes up, and all measures except the Henmon-Nelson are involved, occupational aspirations increase. In like manner, educational achievement is positively associated with the social status of the occupations to which these students aspire. Furthermore the magnitude of the correlations involved here is often quite substantial.

In general, it may be inferred that support is present for hypothesis IIA; as achievement motivation increases, measured school achievement and intelligence also rise. There are some indications that these relationships hold more broadly for the white students; however, similar tendencies are present for the Indian youth. Additional signs imply that where these relationships hold for the Indians, we see the acceptance of a Calvinist work ethic and a high valuation of reading and the utility of verbal skills. There is little doubt that indices of occupational aspiration are relevant to high school youth but these seem of greater import for whites than Indians, nevertheless possibilities in this realm relate meaningfully to intelligence and achievement as was theorized. Such associations might be strengthened among the Indian Ss if they are given a better understanding of job possibilities and requirements across the nation. This writer conceives of such an effort as beginning early and being very extensive in scope with much potential of personal contact and experience. The initiation of job and professional information programs could also serve as an avenue for inculcating long range future perspectives and thus become a spur to improved educational performance. Naturally the significance of this material to reservation life and development would have to be explored by both those undertaking this type of schooling and the students involved. The findings observed for the Indians versus the white Ss relative to the occupational domain is seen as one kind of evidence supporting the notion of the reservation as somewhat cut off and insulated from the mainstream of American society.

Hypothesis IIB: Achievement motivation will be lower among non-continuers than continuers.

Tables 30 and 31 contain the data appropriate to the assessment of this hypothesis. It is evident that the findings are not clear or consistent. For grades 7-8, the theoretical Achmot score is the only one which reveals a significant difference between the two groups in the direction hypothesized. None of the four factor scalesdifferentiates continuers from non-continuers. A similar supportive result is observed for the Hatt-North scale I indicating that continuers through these early grades have higher occupational aspirations than those who do not remain in school. Again this isolated finding provides only tentative support for the above hypothesis.

Table 30

Indian Continuers vs Non-Continuers

On Achievement Motivation and Occupational Aspiration

Grades 7-8	Non-Continuers			Continuers			
Variables	Mn	SD	N	Mn	SD	N	F
ACHMOT I	6.3	4.35	49	5.6	3.47	311	1.728
" II	6.4	3.06	"	6.3	3.19	"	<1
" III	14.0	2.48	"	14.7	3.02	"	2.373
" IV	4.5	2.36	"	4.0	2.24	"	2.675
Theoretical	54.7	10.39	"	50.2	11.05	"	7.792**
n-ACH	6.8	3.74	41	6.5	3.72	297	<1
Occupational Aspiration							
EOG	2.5	1.94	24	2.3	2.15	201	<1
WORS	2.6	1.30	25	2.4	1.19	202	<1
HN-I	3.8	2.01	"	3.0	1.63	"	4.767*
HN-II	73.8	8.92	"	75.3	8.21	"	<1
Grades 9-12							
ACHMOT I	4.1	2.60	59	5.3	3.44	334	5.925*
" II	7.7	3.92	"	7.8	3.06	"	<1
" III	14.0	2.20	"	14.2	3.32	"	<1
" IV	3.2	2.35	"	3.8	2.32	"	3.286
Theoretical	47.1	10.15	"	49.0	11.52	"	6.316*
n-ACH	6.3	3.43	58	6.9	4.11	315	1.355
Occupational Aspiration							
EOG	3.6	2.56	20	2.7	2.33	152	2.045
WORS	2.8	1.47	"	2.5	1.30	"	<1
HN-T	3.7	1.93	"	3.3	1.76	"	1.051
HN-II	74.4	9.79	"	74.9	8.92	"	<1

* Significant at .05 level
** " " .01 "

Table 30 (Continued)

Grades 7-12	Non-Continuers			Continuers			
Variables	Mn	SD	N	Mn	SD	N	F
ACHMOT I	5.1	3.66	108	5.4	3.45	645	<1
" II	7.1	3.61	"	7.3	3.16	"	<1
" III	14.0	2.34	"	14.4	3.18	"	2.422
" IV	3.6	2.43	"	3.9	2.29	"	1.435
Theoretical	50.5	10.95	"	49.6	11.31	"	<1
n-ACH	6.5	3.57	99	6.7	3.93	612	<1
Occupational Aspiration							
EOG	3.0	2.31	44	2.5	2.24	353	1.662
WORS	2.7	1.38	45	2.4	1.24	354	1.667
HN-I	3.7	1.97	"	3.1	1.69	"	5.309*
HN-II	74.1	9.32	"	75.2	8.53	"	<1

The comparisons made for grades 9 through 12 directly contradict the theory proposed here. These spotty results (only for Achmot I, Theoretical Achmot, and for none of the occupational aspiration measures) suggest that those who do not continue in school possess higher motivation to achieve than those who remain. If these observations are truly accurate representations of the feelings of youth in high school, a possible explanation lies in the implication that those who do not continue their schooling compensate cognitively for this outcome by convincing themselves that they have really tried very hard. The probability is always present that because of lesser ability and poorer preparation for the demands of high school, those who do not continue have tried quite hard, harder than the students who stay in school, but have encountered much greater frustration, failure and thus become more alienated than their continuing peers. Undoubtedly there is also great pressure on the non-continuer to justify to himself and implicitly to the world why he did not remain in school. We could expect such pressure to increase the longer one continues his education. Considering the many possible reasons for non-continuation among high school youth as such are discussed by Wax (1967), the lack of findings with achievement motivation becomes quite understandable and the above explanation is offered in a most tentative manner.

When all of the Ss from grades 7 through 12 are compared with regard to continuation in school, none of the Achmot measures differentiates the two groups, but the HN-I occupational aspiration index again demonstrates the same trend found among the seventh and eighth graders. Summarizing these results, it is not felt that the foregoing hypothesis is supported; however, further evaluation of this domain is warranted.

Some interesting speculations may be derived from examination of Table 31. The comparison of non-continuers over grade levels provide evidence similar to that found for alienation. Children who continue on to high school may be more successful coping with the educational system than those who leave in the junior high school. The former appear to possess higher drives and aspirations (Achmot I) and in general to be more motivated to achieve (Theoretical Achmot) than the latter.

The comparison of the continuing groups again encounters the probability that many pupils found in this analysis may not continue their education at a later time, hence these data must be cautiously treated. Seventh and eighth grade continuers seem to manifest significantly more anxiety and concern about their work than their older counterparts (Achmot II), while showing less aversion to reading and putting forth effort to accomplish their goals. These distinctions may, of course, disappear when the full extent of non-continuation occurs, but

Table 31

Comparisons of Indian Continuers and Non-Continuers Over Grade Levels for Achievement Motivation and Occupational Aspiration

Non-Continuers	Grades 7-8			Grades 9-12			
Variables	Mn	SD	N	Mn	SD	N	F
ACHMOT I	6.3	4.35	49	4.1	2.60	59	9.901**
" II	6.4	3.06	"	7.7	3.92	"	3.288
" III	14.0	2.48	"	14.0	2.20	"	<1
" IV	4.5	2.36	"	3.2	2.35	"	3.913
Theoretical	54.7	10.39	"	47.1	10.15	"	14.615**
n-ACH	6.8	3.74	41	6.3	3.43	58	<1
Occupational Aspiration							
EOG	2.5	1.94	24	3.6	2.56	20	2.472
WORS	2.6	1.30	25	2.8	1.47	"	<1
HN-I	3.8	2.01	"	3.7	1.93	"	<1
HN-II	73.8	8.92	"	74.4	9.79	"	<1
Continuers							
ACHMOT I	5.6	3.47	311	5.3	3.44	334	1.018
" II	6.8	3.19	"	7.8	3.06	"	15.279**
" III	14.7	3.02	"	14.2	3.32	"	4.032*
" IV	4.0	2.24	"	3.8	2.32	"	<1
Theoretical	50.2	11.05	"	49.0	11.52	"	2.307
n-ACH	6.5	3.72	297	6.9	4.11	315	2.057
Occupational Aspiration							
EOG	2.3	2.15	201	2.7	2.33	152	3.426
WORS	2.4	1.19	202	2.5	1.30	"	<1
HN-I	3.0	1.63	"	3.3	1.76	"	2.422
HN-II	75.3	8.21	"	74.9	8.92	"	<1

*Significant at .05 level
** " " .01 "

they can suggest that the earlier grades are times of greater stress relative to schoolwork. None of the occupational aspiration scales apparently distinguish between the various grade level groups, and the previous summarizing statement of data failing to support Hypothesis IIB seems appropriate.

Hypothesis IIC: Achievement motivation will be inversely related to degree of Indianness.

Tables 32 and 33 reveal three indications of possibly significant relationships out of 40 computed between degree of Indian "blood" and our measures of achievement motivation and occupational aspiration. The exceedingly low magnitude of that seen in Table 32 could mark this up a chance occurrence while no meaningful or orderly pattern emerges for the comparisons offered in Table 33. In terms of the present study, it may be concluded that no relationship obtains between degree of Indianness as assessed here and achievement orientations.

Hypothesis IID: Achievement motivation will be positively correlated with Occupational Aspiration.

In order to evaluate this hypothesis reference must be made to Table 13, page 149. Achmot III and the Theoretical scale correlate consistently and significantly with the indices of occupational aspiration for the Indian _S_s. The direction of these correlations is supportive of the hypothesis: aversion to

Table 32

Correlations of Achievement Motivation and Occupational Aspiration with Degree of Indian "Blood"

	r[1]	N
ACHMOT I	-030	746
" II	-074*	"
" III	062	"
" IV	049	"
Theoretical	-027	"
n-ACH	-002	707
Occupational Aspiration		
EOG	050	393
WORS	062	395
HN-I	-034	"
HN-II	-065	"

[1] Decimal Points Omitted

*Significant at .05 level

Table 33

Comparison of Indian "Blood" Groups on Achievement Motivation and Occupational Aspiration by Grade Levels

	Degree of Indian "Blood"												
	1/4			1/2			3/4			4/4			
Grades 7-8	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	F
ACHMOT I	5.9	2.64	26	5.5	3.47	68	6.1	4.01	51	5.6	3.67	211	<1
" II	7.5	2.71	"	7.0	3.32	"	6.9	3.08	"	6.6	3.19	"	<1
" III	14.5	2.53	"	14.4	2.67	"	14.2	2.20	"	14.5	2.53	"	<1
" IV	4.3	2.36	"	3.8	1.95	"	3.9	1.78	"	4.0	2.21	"	<1
" Theor.	50.4	7.87	"	50.0	12.14	"	51.6	11.69	"	50.8	10.19	"	<1
n-ACH	7.0	5.05	"	7.1	3.51	65	6.0	3.61	48	6.4	3.58	196	1.057
Occupational Aspiration													
EOG	2.6	1.92	18	1.8	1.56	40	2.6	2.39	28	2.3	2.21	136	1.004
WORS	2.3	1.15	"	2.3	1.14	42	2.5	1.55	"	2.4	1.14	"	<1
HN-I	3.4	1.80	"	3.0	1.62	"	3.8	2.18	"	2.9	1.53	"	2.378
HN-II	76.6	8.33	"	75.7	6.74	"	72.7	11.24	"	75.3	8.01	135	1.052

**Significant at .01 level

Table 33 (Continued)

	Degree of Indian "Blood"												
	1/4			1/2			3/4			4/4			
Grades 9-12	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	F
ACHMOT I	4.7	2.89	37	6.2	3.37	94	4.8	3.34	75	4.8	3.31	184	4.493**
" II	8.2	3.75	"	7.6	2.90	"	8.0	3.06	"	7.7	3.27	"	<1
" III	14.1	3.00	"	14.0	3.69	"	14.3	2.38	"	14.8	3.15	"	1.651
" IV	3.5	1.95	"	4.2	2.56	"	3.6	1.96	"	3.6	2.40	"	1.729
" Theor.	47.2	12.08	"	52.6	10.63	"	48.0	11.56	"	46.4	10.86	"	6.598**
n-ACH	6.1	3.50	36	6.4	3.85	90	7.6	4.44	70	6.8	3.97	176	1.550
Occupational Aspiration													
EOG	2.8	2.51	21	2.6	2.22	42	2.4	2.00	32	3.2	2.51	76	1.139
WORS	2.5	1.53	"	2.3	1.28	"	2.4	1.09	"	2.7	1.35	"	<1
HN-I	3.3	2.08	"	3.2	1.89	"	3.1	1.60	"	3.5	1.71	"	<1
HN-II	76.6	10.53	"	75.6	8.13	"	74.9	8.96	"	73.9	8.97	"	<1
Grades 7-12													
ACHMOT I	5.2	2.85	63	5.9	3.38	162	5.3	3.69	126	5.2	3.53	395	1.433
" II	7.9	3.38	"	7.4	3.10	"	7.5	3.12	"	7.2	3.27	"	1.236
" III	14.3	2.82	"	14.2	3.30	"	14.3	2.31	"	14.7	2.84	"	1.270
" IV	3.8	2.17	"	4.1	2.34	"	3.7	1.89	"	3.8	2.31	"	<1
" Theor.	48.6	10.67	"	51.3	11.24	"	49.4	11.75	"	48.7	10.73	"	2.129
n-ACH	6.5	4.24	62	6.7	3.75	155	7.0	4.20	118	6.6	3.78	372	<1
Occupational Aspiration													
EOG	2.7	2.26	39	2.2	1.97	82	2.5	2.19	60	2.6	2.36	212	<1
WORS	2.4	1.37	"	2.3	1.22	84	2.4	1.32	"	2.5	1.23	"	<1
HN-I	3.4	1.95	"	3.2	1.77	"	3.4	1.92	"	3.1	1.62	"	<1
HN-II	76.6	9.58	"	75.7	7.54	"	73.9	10.15	"	74.8	8.40	211	<1

reading and unwillingness to expend effort (Achmot III) are associated with low occupational aspirations, while the same pattern obtains for achievement motivation in general (Theoretical Achmot). The observed coefficients tend to be low but statistically significant.

A somewhat broader set of relevant correlations among these measures is noted for the white Ss, and as discussed previously, this pattern seems different than that for the Indian youth. As Achmot I, high achievement drive and aspirations increase, so does one's occupational hopes. Achmot III only relates meaningfully with WORS and HN-II as theorized: occupational aspiration also increases with a liking of reading and effort expenditure. In a like manner, a Calvinist outlook on work (Achmot IV) ties to HN-II as expected. Borderline relationships are also seen for the Theoretical Achmot measure with the EOG and HN-I. N-Ach did not relate significantly to the occupational aspiration scores for the Indian _S_s, but two meaningful associations are found for the white students, and these are also in the theorized direction. In essence, therefore, indications are present supporting Hypothesis IID; however, the qualification must be introduced that the correlations observed are generally low, but possibly stronger for the white _S_s. This has been discussed earlier and the previous explanation should again hold here.

Hypothesis IIE: Achievement motivation will be negatively associated with alienation.

Tables 11, 12, and 13 provide the data for evaluation of this hypothesis. A rather broad pattern of significant relationships obtains between the Alienation and Achievement Motivation measures for both Indians and whites. Meaningful correlations between the Alienation scales, n-Ach and the indices of Occupational Aspiration are essentially null for the Indians, but seem to be present for the white Ss. It has been mentioned that there is reason to infer the greater relevance of many of these instruments for the latter sample.

Considering first the findings with the Indian youth, it is evident that support is generally gained for the hypothesis but there are a few coefficients which are in the opposite direction and which therefore do not appear sensible. For example, if we examine the correlations between Powerlessness (Alien I) and the Achmot scales, we see a positive borderline significant association with High Drive (Achmot I) and a similar observation with the Calvinist Work Ethic represented in Achmot IV. These would suggest that feelings of Powerlessness are found with strong motivations to attain high goals plus faith in the utility of work. Neither result was expected and if these are not chance produced, there is the possibility we may be seeing the rather pervasive influence of a Social Desirability response set. The items in Achmot Scales I and IV tap rather sensitive, highly valued areas in American cultural life, and it may be that people, Indian and white, simply must see themselves in terms of this content even if they are helpless. In fact, the latter feelings may spur the belief that one is truly struggling very hard against overwhelming odds, and though being slowly defeated in the process, allegiance to our cherished values remains unshaken.

In contrast to the above, and in line with the theory offered here, Powerlessness does relate quite strongly to anxiety about work (Achmot II), aversion to putting forth effort and reading activity (Achmot III) and Achievement Motivation in general (Theoretical scale).

Turning to Alien II, it is seen that this scale correlates significantly for the Indian youth with all of the Achmot measures in the expected direction. Since Alien II pictures a Protestant Ethic orientation and virtually all of the Achmot instruments seem to possess a similar quality, the relationships seen here are probably a function of quite similar item content. The magnitude of the coefficients observed implies, however, that possibly more is operating to establish this pattern.

The remaining significant r's between the Alien and Achmot measures continue to affirm the thesis that as Alienation increases, Achievement Motivation declines; however, three inconsistent findings are noted as above with Achmot Scales I and IV. These are generally borderline in magnitude and if not due to a response set could still be of a chance nature. Of the remaining meaningful associations, the strongest are found with Achmot II indicating that anxiety and concern about work is very much a component of an alienated outlook. The possibility of this being a product of work eventuating in failure experiences within and without the school setting is quite real. Table 13 reveals only two quite low, but theoretically appropriate coefficients between the Alien scales and n-Ach. None of the Occupational Aspiration measures correlate significantly for the Indian _Ss_.

The same pattern of Alienation-Achievement Motivation relationships as that found for Indians is seen in Table 12 for whites. As the former increase, the latter decline. Again, Achmot IV, the Calvinist Work Ethic, shows a few associations in the unexpected direction (Alien I and V) implying the possibility of a confounding factor such as Social Desirability. The conformist, Protestant Ethic perspective of Alien II seems to be rather pervasive, yiedling some noteworthy correlations with the Achmot measures. Similar tendencies were seen for the Indian _Ss_.

The relevance of the n-Ach measure for the whites as opposed to the Indians is again revealed in that four of the six possible relationships with the Alienation measures are statistically significant, and as hypothesized. N-Ach also ties to the

Occupational Aspiration indices in like manner. Where none of the Alienation scales correlated meaningfully with the occupational scores for the Indians, 11 exceed the .05 level for the white students. These associations consistently imply that as Powerlessness (Alien I), Meaningless (Alien III), Normlessness (Alien VI), and Total Alienation (Theoretical) increase, occupational aspirations and hopes reduce, yet as the conformist, Protestant Ethic perspective is internalized, so do perceived chances of attaining high occupational goals.

It may be concluded that the evidence supports Hypothesis IIE; Achievement Motivation varies inversely with Alienation with some indications that this relationship is stronger among the white youth as regards occupational hopes.

Hypothesis IIF: Achievement Motivation will increase with school grade.

We saw in Table 31 that those who discontinued school in the upper grades appeared to possess greater achievement drives and aspirations than pupils who failed to make it through the seventh and eighth grades. Similar results suggesting the validity of the above hypothesis was obtained with the continuers. Those who were in high school demonstrated less work anxiety than their junior high counterparts; however, the latter, at a borderline point, revealed less aversion to reading plus a perceived willingness to expend more effort. This observation may be due to chance or a function of actual ability and achievement. It is not possible to offer an explanation that seems very satisfactory.

Table 34 provides additional information on the relationship of achievement motivation over grades for both Indians and whites. As mentioned earlier with regard to Alienation, the data on Indians is presented for speculative purposes since the previous analyses distinguish continuers and non-continuers within this group. Nevertheless, except for the results on the EOG, all differences between the grade levels are as hypothesized for the Indian pupils. The high school youth show significantly higher drives and aspirations (Achmot I), less work anxiety (Achmot II), and overall greater achievement motivation (Theoretical Achmot) than the seventh and eighth graders. In contrast, the EOG suggests that the latter Ss have higher job aspirations. When future hopes are codified into a job prediction the lesser knowledge of the younger children plus their possibly greater unreality in this domain may account for this finding.

The same pattern of differences is found for the white students. On the Achmot measures, high school pupils manifest exactly the same pattern as was true for the Indian youth. The contradictory results with the EOG are extended for two of the

Table 34

Indians and Whites

Grades 7-8 vs 9-12

On Achievement Motivation and Occupational Aspiration

Indians	Grades 7-8			Grades 9-12			
Variables	Mn	SD	N	Mn	SD	N	F
ACHMOT I	5.7	3.61	360	5.1	3.35	393	4.625*
" II	6.8	3.18	"	7.8	3.20	"	18.431**
" III	14.4	2.52	"	14.2	2.50	"	1.424
" IV	4.0	2.12	"	3.6	2.42	"	3.607
" Theor.	50.8	10.66	"	48.7	10.76	"	6.752**
n-Ach	6.5	3.72	338	6.8	4.01	373	1.161
Occupational Aspiration							
EO6	2.3	2.13	225	2.8	2.37	172	5.271*
WORS	2.4	1.20	227	2.5	1.32	"	<1
HN-I	3.1	1.69	"	3.3	1.79	"	1.987
HN-II	75.2	8.31	"	74.8	9.03	"	<1
Whites							
ACHMOT I	6.1	3.36	170	5.2	3.40	540	8.886**
" II	7.4	3.15	"	8.5	2.91	"	16.070**
" III	14.1	2.78	"	14.1	2.65	"	<1
" IV	3.1	2.25	"	3.2	1.93	"	<1
" Theor.	49.5	10.98	"	47.3	11.42	"	4.799*
n-Ach	7.4	4.00	184	7.8	4.64	377	<1
Occupational Aspiration							
EO6	2.3	2.00	154	2.8	2.15	421	4.565*
WORS	2.2	1.22	"	2.4	1.37	"	4.640*
HN-I	3.3	1.86	"	3.7	2.07	"	3.796
HN-II	76.9	9.79	"	74.2	9.87	"	8.801**

*Significant at the .05 level
** " " " .01 "

of the remaining three Occupational Aspiration indices, the WORS and HN-II. In all probability the same reasons hold for this apparent discrepancy as for the Indian children.

Despite the findings with the Occupational Aspiration variables, it is felt that the results support the hypothesis more than counter it, namely achievement motivation varies positively with grade.

Hypothesis IIG: Whites will show higher levels of achievement motivation than their Indian counterparts.

Table 35 presents the Indian white comparisons for the relevant measures by grade levels and overall. A few results opposite to the hypothesis are more than offset by supportive findings. On the Achmot scales, the only discrepancy is found for grades seven and eight where the Indian Ss appear less negative toward reading and more willing to put forth effort (Achmot III). The few scattered significant results on the Occupational Aspiration indices lead to the inference that the Indian youth possess higher hopes in this realm than the whites. One wonders if the findings with these scoring variants for occupational status are not a function of the kind of transformations that are being introduced since it is rare for more than one of these schema to result in statistical significance.

Table 35

Indians vs Whites

On Achievement Motivation and Occupational Aspiration

by Grade Levels

Grades 7-8	Indians			Whites			
Variables	Mn	SD	N	Mn	SD	N	F
ACHMOT I	5.7	3.61	360	6.1	3.36	170	1.871
" II	6.7	3.18	"	7.4	3.15	"	5.128*
" III	14.6	2.52	"	14.1	2.76	"	6.781**
" IV	4.1	2.12	"	3.1	2.25	"	39.555**
" Theor.	50.5	10.66	"	49.5	10.98	"	1.267
n-ACH	6.5	3.72	338	7.4	4.00	184	6.644
Occupational Aspiration							
EOG	2.3	2.13	225	2.3	2.00	154	<1
WORS	2.4	1.20	227	2.2	1.22	"	3.428
HN-I	3.1	1.69	"	3.3	1.86	"	2.266
HN-II	75.2	8.31	"	76.9	9.79	"	3.568
Grades 9-12							
ACHMOT I	5.1	3.35	393	5.2	3.40	540	<1
" II	7.8	3.20	"	8.5	2.91	"	12.703**
" III	14.2	2.50	"	14.1	3.65	"	<1
" IV	3.6	2.42	"	3.2	1.93	"	10.035**
" Theor.	48.7	10.76	"	47.3	11.42	"	3.611
n-ACH	6.8	4.01	373	7.8	4.64	377	8.906
Occupational Aspiration							
EOG	2.8	2.37	172	2.8	2.15	421	<1
WORS	2.5	1.32	"	2.4	1.37	"	<1
HN-I	3.3	1.79	"	3.7	2.07	"	4.928*
HN-II	74.8	9.03	"	74.1	10.18	"	<1

*Significant at .05 level
** " " .01 "

Table 35 (Continued)

Grades 7-12	Indians			Whites			
Variables	Mn	SD	N	Mn	SD	N	F
ACHMOT I	5.4	3.45	753	5.4	3.45	710	<1
" II	7.4	3.24	"	8.2	3.00	"	29.915**
" III	14.4	2.49	"	14.1	2.70	"	3.814
" IV	3.8	2.26	"	3.2	3.03	"	32.982**
" Theor.	49.5	10.80	"	48.0	11.27	"	6.857**
n-ACH	6.7	3.88	711	7.7	4.44	561	18.053**
Occupational Aspiration							
EOG	2.5	2.25	397	2.7	2.12	575	<1
WORS	2.5	1.26	399	2.4	1.34	"	1.049
HN-I	3.2	1.74	"	3.6	2.02	"	12.594**
HN-II	75.0	8.63	"	74.9	9.92	"	<1

Of the possible 18 group comparisons by and across all grade levels on the Achmot and n-Ach measures, 10 attained significance beyond the .05 level, none of these beyond the .01 level. Only one of these differences is in the direction opposite to the hypothesis. Most consistent are the findings with Achmot scales II and IV, indicating that the white students show less anxiety about their work and are more committed to what may be termed a Calvinist work ethic. For grades 9 through 12 and for all of the Ss, whites demonstrate greater achievement motivation on the n-Ach measure of McClelland and Atkinson. One would therefore have to conclude that the white pupils do show signs of greater achievement motivation than their Indian counterparts.

The argument still remains that the simple comparison of whites and Indians includes known non-continuers and therefore may give an unfortunately biased view of the motives of the Indian children. To evaluate this possibility, Table 36 presents a comparison of the white Ss with the Indian Continuers. The results are essentially the same as reported above, and if anything are more graphic in that the n-Ach index now distinguishes among the groups on all three breakdowns and the theoretical Achmot scale is now significant for the ninth through twelfth grades as theorized. Hypothesis IIG is thus supported.

Table 36

Indian Continuers vs Whites

by Grade Level

On Achievement Motivation and Occupational Aspiration

Grades 7-8	Indian Continuers			Whites			
Variables	Mn	SD	N	Mn	SD	N	F
ACHMOT I	5.6	3.47	311	6.1	3.36	170	2.378
" II	6.8	3.19	"	7.4	3.15	"	3.955*
" III	14.7	3.02	"	14.1	2.78	"	4.819*
" IV	4.0	2.24	"	3.1	2.25	"	17.687**
" Theor.	50.2	11.05	"	49.5	10.98	"	<1
n-Ach	6.5	3.72	297	7.4	4.00	184	6.073*
Occupational Aspiration							
EO6	2.3	2.15	201	2.3	2.00	154	<1
WORS	2.4	1.19	202	2.2	1.22	"	2.411
HN-I	3.0	1.63	"	3.3	1.86	"	2.535
HN-II	75.3	8.21	"	76.9	9.79	"	2.678
Grades 9-12							
ACHMOT I	5.3	3.44	334	5.2	3.40	540	<1
" II	7.8	3.06	"	8.5	2.91	"	11.238**
" III	14.2	3.32	"	14.1	2.65	"	<1
" IV	3.8	2.32	"	3.2	1.93	"	15.726**
" Theor.	49.0	11.52	"	47.3	11.42	"	4.524*
n-Ach	6.9	4.11	315	7.8	4.64	377	7.318**
Occupational Aspiration							
EO6	2.7	2.33	152	2.8	2.15	421	<1
WORS	2.5	1.30	"	2.4	1.37	"	<1
HN-I	3.3	1.76	"	3.7	2.07	"	5.260*
HN-II	74.9	8.92	"	74.2	9.87	"	<1

*Significant at the .05 level
** " " " .01 "

Table 36 (Continued)

Grades 7-12	Indian Continuers			Whites			
Variables	Mn	SD	N	Mn	SD	N	F
ACHMOT I	5.4	3.45	645	5.4	3.45	710	<1
" II	7.3	3.16	"	8.2	3.00	"	28.939**
" III	14.4	3.18	"	14.1	2.70	"	3.489
" IV	3.9	2.29	"	3.2	3.03	"	23.338**
" Theor.	49.6	11.31	"	8.0	11.37	"	6.731**
n-Ach	6.7	3.93	612	7.7	4.44	561	16.578**
Occupational Aspiration							
EO6	2.5	2.24	353	2.7	2.12	575	1.819
WORS	2.4	1.24	354	2.4	1.34	"	<1
HN-I	3.1	1.69	"	3.6	2.02	"	16.659**
HN-II	75.2	8.53	"	74.9	9.92	"	<1

Summary of Achievement Motivation Findings

Though the observations made with the measures of Achievement Motivation are not as impressive as found with the Alienation scales, support may be adduced for the majority of the hypotheses. Questions have been raised regarding the menaingfulness of the Occupational Aspiration scoring schema as these appear more relevant for the whites than the Indian students. The potential of some confounding response set such as Social Desirability relative to those Achmot measures dealing with work must also be considered though a final assessment of such a likelihood will hinge on future research. Though implied, explicit recognition need be afforded the high probability that Achievement Motivation scales may be more sensitive to socioeconomic class variations between the Indians and whites than the ethnic differences per se between these groups; however, at this point the two are confounded. At a later place in this report, the possible separation of these factors will be discussed. Given these considerations, we may summarize the findings with regard to achievement motivation as follows.

1. As achievement motivation increases, measured school achievement and intelligence also tend to rise. These findings may hold more for the white Ss than the Indian, though such are found for both groups. One may also infer that the results

with the intelligence measures have a good probability of reflecting the verbal achievement component in these tests.

2. Continuers and Non-Continuers do not appear to be well distinguished by the measures of Achievement Motivation employed here. Spotty results do support the hypothesis of some differences within specific grade levels, but a few of these are opposite to the theory offered, and explanations for these findings are weak though suggestive.
3. No substantive relationship appears to exist between degree of Indianness and achievement motivation.
4. The measures of Achievement Motivation, as a rule, do not correlate well with the Occupational Aspiration scoring systems, though the greater relevance of these latter schema for the white _S_s seems apparent. Undoubtedly we are dealing with rather complex factors especially with regard to occupational hopes.
5. With similar indications that the achievement motivation indices are more appropriate for the white pupils, evidence was found to suggest meaningful negative relationships for both white and Indian _S_s between the measures of Alienation and Achievement Motivation.
6. As was expected, there are signs that achievement motivation increases with grade level. This may reflect both the

greater demands on such motives as one advances through school plus the internalization of middle-class tendencies in this direction. Conformity to school requirements would seem to be a part of such a motivational complex.

7. There is little doubt that white students demonstrate greater signs of achievement motivation than their Indian counterparts at all grade levels. Again this is likely to be a class conditioned response pattern in addition to that implied by ethnic identity.

Chapter VII

Results and Discussion IV:

Child-School Relationships--Attitudes Toward School

The basic purpose of this research was to determine what in the relationship of the Indian child to the school adversely affects his educational performance. We have seen that an alienated outlook is associated with relatively low achievement motivation. Both of these attitudinal complexes are tied to school continuation and academic attainment. In order to relate these rather general characteristics to the school situation, an attempt was made to derive measures of school attitudes. Such could serve as mediators of the above orientations to suggest more clearly connective mechanisms between actual educational behavior and the psychological correlates of the Indian-poverty circumstances in which these children live. They may also point to remedial possibilities that can be actuated through the schools, thus enhancing the roles of the school and education in the development of Indians as part of American society. The explanatory and action potential of the domain of school attitudes may thus be considerable.

Hypothesis IIIA: Attitudes toward school will become more negative as achievement and intelligence decline.

Table 37 presents the correlations among the achievement, intelligence and attitude measures pertinent to this hypothesis.

Table 37

Correlations among Attitudes toward School, Intelligence and Achievement Measures

	Indians ATS				
r's	I	II	III	IV	Theor.
L-T-NV-IQ	-110*	-085	250**	118*	188**
" V-IQ	-172**	-050	298**	070	187**
T-IQ	-153**	-078	302**	113*	210**
KF-IQ	-101	039	158**	068	079
ITBS	-013	-199	181	-023	234
CAT-Raw Sc	-337**	-197**	432**	213**	396**
" -GP	-323**	-229**	413**	195**	382**
"%-ile	-310**	-151**	392**	132*	330**
ITED-SS	-072	-035	172**	042	103
" %-ile	-065	-033	101	-011	026
N's					
L-T-NV-IQ	396	396	396	396	396
" V-IQ	402	402	402	402	402
" T-IQ	394	394	394	394	394
KF-IQ	334	334	334	334	334
ITBS	22	22	22	22	22
CAT-Raw Sc.	279	279	279	279	279
" -GP	332	332	332	332	332
"%-ile	"	"	"	"	"
ITED-SS	349	349	349	349	349
" %-ile	"	"	"	"	"

*Significant at .05 level
** " " .01 "

Table 37 (Continued)

Correlations among Attitudes toward School,
Intelligence and Achievement Measures

			Whites ATS		
r's	I	II	III	IV	Theor.
L-T-NV-IQ	-146	063	075	012	053
" V-IQ	-370**	-007	191	024	178
" T-IQ	-205**	-010	077	118*	107*
KF-IQ	-271*	-259*	155	016	230
HN-IQ	-064	026	028	042	030
ITED-SS	-216**	-155**	145**	171**	212**
" %-ile	-248**	-139**	146**	118*	188**
MAT	-378**	044	353**	291**	221**
ITBS	-397**	-182	378**	212	356**
N's					
L-T-NV-IQ	95	95	95	95	95
" V-IQ	"	"	"	"	"
" T-IQ	366	366	366	366	366
KF-IQ	71	71	71	71	71
HN-IQ	175	175	175	175	175
ITED-SS	429	429	429	429	429
" %-ile	"	"	"	"	"
MAT	135	135	135	135	135
ITBS	65	65	65	65	65

*Significant at .05 level
** " " .01 "

It can be readily seen that some rather noteworthy relationships exist with these variables for both Indian and white Ss. Significant correlations among the attitude measures themselves undoubtedly account for some of these results.

The finding that intelligence varies with attitudes toward school again suggests that those who are brighter and probably more capable in handling educational content are likely to be more positive toward continuing their education (ATS I) and also to perceive the school as more useful in the long run (ATS III). Though the first pattern of associations holds for both the Indians and whites, the latter obtains only for the Indian Ss. In addition, there are some slight indications that IQ varies positively with a liking of school on rational grounds (ATS IV). Overall, negativism toward the school increases as intelligence declines especially for the Indian pupils (Theoretical ATS) while these variables are essentially independent for the whites. The former may be evidenced among the Indians because the value of education is much more an individual matter than among whites who are confronted with such pressure and expectations from early childhood.

A much more pervasive pattern of relationships is present between attitudes toward school and measures of educational achievement. These seem to hold across all of attitudes assessed and also to be stronger; however, some variation between the Indians and whites is present. Among the former virtually nothing is found with the ITED, while the whites show quite the opposite. One may conjecture that Indians who make it into high school are therefore different than those found only through the eighth grade. This has been mentioned earlier in these pages. Examination of some of the later tables does hint at the possibility of reduced variation among Indians in their attitudes toward school. Table 26 also suggests less variance with Indians on the ITED than whites. The lack of significant r's among these measures for the Indians could then be a function of reduced variation on both the attitude and achievement scales.

One would not expect similar findings for the CAT which was only given in grades 7 and 8, hence the broad pattern of rather significant correlations with the attitude measures noted for the Indian pupils. It is clear that achievement on the CAT is positively related to desires to continue in school (ATS I), liking of teachers (ATS II), perceiving the utility of school (ATS III), rationally approving of school (ATS IV), and finally valuing the school in general (Theoretical ATS). The same pattern is found among the whites on the ITED and this is partially supported by findings with the MAT and ITBS.

In sum, both intelligence and educational achievement are found in conjunction with positive outlooks toward school thus the hypothesis is supported. The attitudes observed are likely to be a function of success experiences in the school setting which themselves are a natural result of greater ability and internalization of school lessons. Lest too much emphasis be placed on intelligence per se, the tendency for higher r's between the attitude scales and the achievement tests implies that though intelligence may be a component in performance, there is the considerable likelihood of non-intellectual involvement from factors such as Alienation, Achievement Motivation, and Attitudes toward School among Indians. These latter influences may also be of prime importance in determining who goes on to high school. Attention should also be afforded the rather broad pattern of high coefficients observed with ATS III. Granted that those who do not do well in school may justify their status by viewing the school as not meaningful to them, there is also the high probability that the school, as now functioning within the reservation setting may actually not be as relevant to the needs of these children as it could be. From recent discussions with school officials and teachers at Pine Ridge, it is apparent that this question is one with which these people live constantly and it has elicited much concern. Unfortunately American education, in general, has not resolved this problem for large sectors of our population, especially the economically disadvantaged minorities; however, the current spate of books in this area does testify to the sensitivity and awareness of educators regarding these difficulties. Such awareness is abundantly evident at Pine Ridge.

Hypothesis IIIB: Non-continuers will demonstrate more negative attitudes toward school than continuers.

The findings noted above are further supported in Table 38 and verify this hypothesis on the relationship of school attitudes and continuation. The data are strongest for grades seven and eight. Even though all differences are as theorized, only three of the five measures attain statistical significance. Here we see the Continuers manifesting greater desires to continue school (ATS I), a perception of the school as being useful (ATS III) and overall being less negative toward the school situation (Theoretical ATS). ATS III again reaches significance for grades nine through 12 and also over all grade levels. From these and the previous findings, this scale seems especially sensitive. Apparently the perceived utility of education and the school may be one of the critical issues in this complex of achievement and school continuation. It must be remembered that Meaninglessness is a core concept of Alienation and it is possible that ATS III reflects the same phenomenon relative to the school.

Table 38

Indian Continuers vs Non-Continuers
on Attitudes Toward School

Grades 7-8	Non-Continuers			Continuers			
Variables	Mn	SD	N	Mn	SD	N	F
ATS I	25.9	4.49	49	24.3	3.35	311	8.186**
" II	25.3	3.73	"	24.3	4.03	"	2.985
" III	10.1	3.60	"	11.6	3.16	"	9.965**
" IV	5.6	2.46	"	5.9	2.38	"	<1
Theoretical	50.2	8.98	"	54.0	8.54	"	8.055**
Grades 9-12							
ATS I	24.1	3.22	59	24.3	3.05	334	<1
" II	25.2	3.67	"	25.3	3.64	"	<1
" III	11.7	3.53	"	12.6	2.85	"	4.061*
" IV	6.0	2.68	"	6.0	2.40	"	<1
Theoretical	53.5	8.85	"	54.2	7.89	"	<1
Grades 7-12							
ATS I	24.9	3.95	108	24.3	3.20	645	3.130
" II	25.3	3.70	"	24.8	3.87	"	1.417
" III	11.0	3.65	"	12.1	3.04	"	12.349**
" IV	5.8	2.59	"	5.9	2.39	"	<1
Theoretical	52.0	9.06	"	54.1	8.21	"	5.603*

*Significant at .05 level
** " " .01 "

Turning to Table 39, we again see the significance attached to ATS III in that Non-Continuers in the seventh and eighth grades view the school ~~as~~ less useful than those who do not complete high school. The same pattern seems to hold true for the Continuers. Paralleling these findings is the result on ATSI for the Non-Continuers. Those who leave early are more negative to continuing their education than students who at least enter high school. An interesting variation is seen on ATS II among the Continuers. Here is the suggestion that continuation in school may be associated with a growing negativism toward the teachers. As we shall see later this seems to hold for all of the Indian Ss. Again interpretive caution is necessary because of the high probability of changes in the composition of the Continuer sample over time.

To summarize, we may say that Hypothesis IIIB has achieved some support. Those who do not continue their education tend to be more negative toward remaining in school and regard the school as less useful and meaningful to them.

Hypothesis IIIC: Negativity of attitudes toward school will increase with degree of Indianness.

Very tentative support for this hypothesis may be seen in Tables 40 and 41. Again ATS III seems to be the most

Table 39

Comparisons of Indian Continuers and Non-Continuers over Grade Levels on Attitudes Toward School

Non-Continuers	Grades 7-8			Grades 9-12			
Variables	Mn	SD	N	Mn	SD	N	F
ATS I	25.9	4.49	49	24.1	3.22	59	5.619*
" II	25.3	3.73	"	25.2	3.67	"	<1
" III	10.1	3.60	"	11.7	3.53	"	5.622*
" IV	5.6	2.46	"	6.0	2.68	"	<1
Theoretical	50.2	8.98	"	53.5	8.85	"	3.608
Continuers							
ATS I	24.3	3.35	311	24.3	3.05	334	<1
" II	24.3	4.03	"	25.3	3.64	"	11.386**
" III	11.6	3.16	"	12.6	2.85	"	15.223**
" IV	5.9	2.38	"	6.0	2.40	"	<1
Theoretical	54.0	8.54	"	4.2	7.89	"	<1

*Significant at .05 level
** " " .01 "

sensitive scale. The coefficient of -.114 presented in Table 40 is indeed low but statistically meaningful. This does imply a real but rather weak trend for the school to be viewed as less useful and relevant the more Indian a child is. For two of the three grade-level comparisons offered in Table 41, the same result is found. For grades seven and eight and seven through twelve, it seems to be the full-blood pupils who manifest the greatest perception of school uslessness. Considering their circumstances and background this is quite likely to be an accurate assessment of the situation. A somewhat contradictory finding is seen in grades nine through 12 on ATS I, where borderline significance is obtained. Here that the 3/4 and full-blood students are more positive to remaining in school than their ¼ and ½ blood counterparts. Though this may be a chance result, the possibility that those with a high degree of Indian blood who make it into high school are an exceptionally motivated group, relative to their like "blooded" peers, should not be discounted. In many ways the "cards are stacked against them" because of their background and outlook, thus, as we noted in Table 20, page 183, these are still the children who are not likely to make it through high school.

Though some evidence was gained in favor of this hypothesis, this should not be overgeneralized. In most

Table 40

Correlations of Attitudes Toward School With Degree of "Indian Blood"

	r[1]	N
ATS I	-016	746
" II	-040	"
" III	-114**	"
" IV	019	"
Theoretical	-004	"

[1] Decimal points omitted

**Significant at .01 level

Table 41

Comparison of Indian "Blood" Groups on Attitudes Toward School by Grade Levels

	Degree of Indian "Blood"												
	1/4			1/2			3/4			4/4			
Grades 7-8	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	F
ATS I	25.0	3.84	26	24.0	3.14	68	24.4	3.58	51	24.8	3.65	211	1.044
" II	24.0	3.98	"	24.8	4.30	"	24.2	3.89	"	24.4	3.94	"	<1
" III	12.1	3.46	"	12.4	2.80	"	11.7	3.12	"	10.9	3.33	"	4.323**
" IV	5.6	2.04	"	5.9	2.47	"	5.8	2.66	"	5.9	2.33	"	<1
" Theor.	54.3	9.16	"	54.1	8.16	"	53.7	8.53	"	53.1	8.88	"	<1
Grades 9-12													
ATS I	24.6	2.87	37	25.0	3.45	94	23.9	2.80	75	24.0	2.91	184	2.766*
" II	25.3	4.05	"	25.9	3.61	"	25.0	3.61	"	25.0	3.49	"	1.621
" III	12.8	2.53	"	12.2	3.10	"	12.6	2.60	"	12.4	3.11	"	<1
" IV	5.8	2.65	"	5.9	2.47	"	5.7	2.43	"	6.1	2.36	"	<1
" Theor.	53.8	7.91	"	52.6	8.44	"	54.8	7.27	"	54.8	7.92	"	1.714
Grades 7-12													
ATS I	24.8	3.31	63	24.4	3.19	162	24.1	3.15	126	24.4	3.35	395	<1
" II	24.8	4.06	"	25.4	3.94	"	24.6	3.75	"	24.6	3.75	"	1.536
" III	12.5	2.97	"	12.4	2.80	"	12.2	2.86	"	11.6	3.32	"	3.563*
" IV	5.7	2.42	"	5.9	2.46	"	5.7	2.53	"	6.0	2.34	"	<1
" Theor.	54.0	8.45	"	53.5	7.98	"	54.4	7.82	"	53.9	8.49	"	<1

*Significant at .05 level
** " " .01 "

instances, degree of Indianness does not seem to relate to one's attitudes toward school.

Hypothesis IIID: Negativity of attitudes toward school will be associated with Alienation

Reference must be made to Tables 11 and 12 to assess this hypothesis. Needless to say the findings are extremely clear. Of the 35 possible correlations, 30 are significant for the Indian Ss. Twenty-nine of these exceed the .01 level and are all in the expected direction. In like manner all 35 possible coefficients are statistically meaningful as theorized for the white pupils. These show that attitudes toward school and teachers become negative as all forms of Alienation increase. It is possible that school attitudes are only one specific expression of Alienation, as the latter should tie into disenchantment with all traditional cultural institutions. These would, of course, be "white" institutions in the present situation. Connections between views of the school and circumstances in general are well mediated by the outlooks conditioned in the Indian-poverty setting that prevails on the reservation. There is little doubt that this hypothesis is strongly supported.

Hypothesis IIIE: Favorable attitudes toward school will relate positively to Achievement Motivation.

Referring to Tables 11 and 12, we see a strong pattern of interrelationships supporting the hypothesis. Of 25 possible correlations, 22 are statistically meaningful for the Indians and 21 for the whites. The overwhelming majority of these exceed the .01 level. High achievement motivation, low work anxiety and a Calvinist Work Ethic are associated with desires to continue schooling, liking of teachers and the school plus perception of the school as important for success in life. This pattern is quite definitive for the Indian pupils, but not the whites. Here we see a set of low but significant r's with Achmot III in the direction opposite to the hypothesis. An aversion to putting forth effort and negativity to reading associates with a desire to continue school, positiveness to the teachers and the school in general. GRE is, as previously suggested, the probability of a chance occurrence, or an explanation based on the general pressure to value school highly within the white community. If the latter is valid here, students who dislike putting forth effort and reading may resolve their dissonance by claiming to be more positive to the school and its agents than their more involved counterparts. Since Achmot III is the only Achievement Motivation scale involved in this pattern of findings, it may be the most sensitive to such a possibility; however, the writer presents this reasoning very tentatively. There is considerable likelihood that much more is being made of these borderline observations than they merit, nevertheless this discussion is offered for heuristic purposes.

Viewing the support noted for both this and the preceding hypothesis, we are forcefully led to the position espoused earlier that Alienation, Achievement Motivation and Attitude toward School comprise an integrated set of perspectives that hold for both whites and Indians. A transactional model of school responsivity which takes this as one aspect of the total life situation of school children would seem to be the only valid approach to employ. Thus far, however, emphasis has been on the child, and a complete theory necessitates attention to both the school and the home. Examination of the school setting has been offered by Berry (1968) in his extensive overview. Unfortunately easy criticism, much of it undoubtedly valid, is freely given (Cahn, 1969), but substantial evidence of specific conflicts within the school, especially the classroom, is still lacking. This is not to say that action programs to counter what is believed in error and to improve the immediate situation should not be undertaken until such data are available. All acknowledge that much is wrong and that present methods and

and contents are working poorly. These inadequacies must be rectified and the need for action will take precedence over that for research. The setting is tailor-made for action research programs and such will have to jointly include the child, the home and the school with full recognition of the Indian-poverty context in which these transactions take place.

Hypothesis IIIF: Favorable attitudes toward school will increase with grade.

Just as school continuation seems to relate positively to the possession of more favorable attitudes toward school relative to those held by non-continuers, we might generally theorize that going through school will necessarily imply increasing identification with school and societal values, This means a growing perception of the school's worth and utility to the individual. Table 42 provides some information on this point. The hypothesis is not supported for the white children, possibly due to their already considerable internalization of the cultural valuation of the school. Two of the ATS scales do show trends for the Indians, yet these cannot be simply taken as for or against the view just presented. On ATS II, we see a possible growing negativism toward the teachers with increasing grade level, while on ATS III, the change observed suggests that the school is perceived as more useful. The scales on which no significant

Table 42

Indians and Whites, Grades 7-8 vs 9-12 on Attitudes Toward School

Indians	Grades 7-8			Grades 9-12			
Variables	Mn	SD	N	Mn	SD	N	F
ATS I	24.6	3.57	360	24.3	3.08	393	1.410
" II	24.4	4.01	"	25.3	3.64	"	9.630**
" III	11.4	3.27	"	12.4	2.98	"	19.694**
" IV	5.9	2.40	"	6.0	2.44	"	<1
" Theoretical	53.5	8.70	"	54.1	8.04	"	<1
Whites							
ATS I	22.8	2.79	170	23.2	2.67	539	3.056
" II	24.5	4.32	"	24.4	3.90	"	<1
" III	13.1	2.77	"	13.4	2.49	"	1.783
" IV	7.1	2.52	"	7.2	2.18	"	<1
" Theoretical	57.0	9.17	"	57.5	8.44	"	<1

*Significant at .05 level
** " " .01 "

differences occur imply almost as much as those where statistical relevance is found. These statements are offered with full recognition that no attempt is being made to prove the null hypothesis, but rather to develop considerations for further work. In this instance, we see no variation among the Indians relative to school continuation or the liking of school. One might infer therefore that the teachers are the most vulnerable objects for outletting the hostility that exists and that a fairly sharp distinction is being made between the school as an institution and the teachers as minions of that structure. This distinguishing of the school and the teacher is an interesting one and does merit further exploration as it may relate somewhat subtly to school performance and continuation. We may, however, conclude that the above hypothesis is not supported.

Hypothesis IIIG: White school children will reveal more positive attitudes toward school than their Indian counterparts.

Comparisons between the white children by grade levels with all of the Indian students and only those of the latter who continued in school are given in Tables 43 and 44. The results are both graphic and consistent. For all practical purposes, on all measures, the Indians demonstrate stronger desires not to

Table 43

Indians vs Whites

on Attitudes Toward School by Grade Levels

Grades 7-8	Indians			Whites			
Variables	Mn	SD	N	Mn	SD	N	F
ATS I	24.6	3.57	360	22.8	2.79	170	31.870**
" II	24.4	4.01	"	24.4	4.32	"	<1
" III	11.4	3.27	"	13.1	2.77	"	33.703**
" IV	5.9	2.40	"	7.1	2.52	"	27.945**
" Theor.	53.5	8.70	"	57.0	9.17	"	18.246**
Grades 9-12							
ATS I	24.3	3.08	393	23.2	2.67	539	31.136**
" II	25.3	3.64	"	24.4	3.90	"	11.382**
" III	12.4	2.98	"	13.4	2.49	"	29.521**
" IV	6.0	2.44	"	7.2	2.18	"	67.968**
" Theor.	54.1	8.04	"	57.5	8.44	"	38.247**
Grades 7-12							
ATS I	24.4	3.33	753	23.1	2.70	709	65.910**
" II	24.9	3.85	"	24.4	4.00	"	4.216*
" III	12.0	3.16	"	13.4	2.56	"	84.317**
" IV	5.9	2.42	"	7.2	2.27	"	105.445**
" Theor.	53.8	8.37	"	57.4	8.63	"	64.498**

*Significant at .05 level
** " " .01 "

Table 44

Indian Continuers vs Whites by Grade Level on Attitudes Toward School

Grades 7-8	Indian Continuers			Whites			
Variables	Mn	SD	N	Mn	SD	N	F
ATS I	24.3	3.35	311	22.8	2.79	170	27.546**
" II	24.3	4.03	"	24.5	4.32	"	<1
" III	11.6	3.16	"	13.1	2.77	"	29.155**
" IV	5.9	2.38	"	7.1	2.52	"	25.942**
" Theoretical	54.0	8.54	"	57.0	9.17	"	12.342**
Grades 9-12							
ATS I	24.3	3.05	334	23.2	2.67	539	29.507**
" II	25.3	3.64	"	24.4	3.90	"	11.945**
" III	12.6	2.85	"	13.4	2.49	"	17.878**
" IV	6.0	2.40	"	7.2	2.18	"	55.553**
" Theoretical	54.2	7.89	"	57.5	8.44	"	34.198**
Grades 7-12							
ATS I	24.3	3.20	645	23.1	2.70	709	55.553**
" II	24.8	3.87	"	24.4	4.00	"	3.500
" III	12.1	3.04	"	13.4	2.56	"	72.194**
" IV	5.9	2.39	"	7.2	2.27	"	105.608**
" Theoretical	54.1	8.21	"	57.4	8.63	"	51.938**

*Significant at .05 level
** " " .01 "

continue school, and more negativism toward the school and teachers than do the white youth. Reference may be made to the same possible reasons as discussed above. Positive valuation of the school and education is fundamental within white society and is undoubtedly also a function of the middle class status of the white children in this study. The school is, in fact, a white school designed for the mainstream of American life. Ethnically and class-wise, Indians remain outside of this tradition, and the expressions seen here are to be expected. We already know that these are tied into school performance and continuation, hence the gap to be bridged between the classes and their cultural correlates plus those due to the Indian heritage is great indeed. The support gained for this hypothesis again raises the entire question of the relevancy of education in American society, not only to the economically disadvantaged but also to students whose cultural background deviates from those who occupy the center of our social and cultural structures.

Hypothesis IIIH: Specifically with respect to the psychological distance one holds himself from significant figures within his personal world, Indian children will hold teachers at greater distances than they do their parents.

Because of the questions that can be raised about standard objective questioning relative to personally sensitive areas, and also because of the centrality of the schools and the teachers in this research, it was mentioned earlier that the ATS scales were supplemented by an experimental procedure to evaluate personal distance. The work of Little (1965; 1968) was taken as a guide since it promised a well tested, apparently sensitive set of procedures in which the real intent of the research could be hidden from the respondent. Little's Doll Placement technique was thus employed with a sample of Indian seventh and eighth graders in order to determine its utility in the present study. Three Indian women known to the children were trained as testors and carried out this phase of the work. The findings are presented in Tables 45 through 48, and it can be seen that this hypothesis is not supported. In order to assess it, the personal distance at which parents and teachers are held were compared for both praise and scolding circumstances. It was soon discovered that the sex of the respondent made a difference, hence this breakdown of the data.

In the analyses by items given in Table 45, the most evident tendency is for girls to place the reference person at a greater distance from themselves than is true for the boys. This seems to hold only for the scolding situations for both teachers and the father, but not for the mother though this last comparison

TABLE 45: PERSONAL DISTANCE ANALYSIS

SEX ANALYSES BY ITEMS

		Boys	Girls	t	P
Standard	MN	50.0	67.8		<.05
	SD	27.74	58.34	2.343	
	N	70	89		
Last Year Teacher - Praise	MN	52.8	59.4		NS
	SD	24.66	45.39	1.092	
	N	69	89		
Last Year Teacher - Scold	MN	54.0	69.6		<.05
	SD	28.19	47.60	2.357	
	N	66	89		
This Year Teacher - Praise	MN	58.8	64.9		NS
	SD	30.17	42.29	1.011	
	N	69	90		
This Year Teacher - Scold	MN	56.8	70.9		<.05
	SD	30.30	45.59	2.194	
	N	69	88		
Mother - Praise	MN	51.0	59.6		NS
	SD	26.38	40.44	1.497	
	N	65	87		
Mother - Scold	MN	53.0	64.8		NS
	SD	25.26	43.24	1.947	
	N	65	84		
Father - Praise	MN	52.7	63.8		NS
	SD	26.34	38.60	1.878	
	N	57	81		
Father - Scold	MN	56.1	77.4		<.01
	SD	32.85	46.98	2.900	
	N	56	79		
Standard (2nd)	MN	53.2	57.4		NS
	SD	24.15	31.89	.896	
	N	69	90		

Table 46: PERSONAL DISTANCE ANALYSIS

PRAISE VS. SCOLD BY SEX

BOYS

		Praise	Scold	t	P
Last Year Teacher	MN	52.8	54.0	.342	NS
	SD	24.66	28.19		
	N	69	66		
This Year Teacher	MN	58.8	56.8	.537	NS
	SD	30.17	30.30		
	N	69	69		
Mother	MN	51.0	53.0	.696	NS
	SD	26.38	25.26		
	N	65	65		
Father	MN	55.4	56.1	.697	NS
	SD	30.09	32.85		
	N	57	56		

GIRLS

		Praise	Scold	t	P
Last Year Teacher	MN	59.4	69.6	3.308	<.01
	SD	45.39	47.60		
	N	89	89		
This Year Teacher	MN	64.9	70.9	1.842	NS
	SD	42.29	45.59		
	N	90	88		
Mother	MN	59.6	64.8	1.404	NS
	SD	40.44	43.24		
	N	87	84		
Father	MN	63.9	77.4	3.446	<.01
	SD	38.60	46.98		
	N	81	79		

TABLE 47: PERSONAL DISTANCE ANALYSIS

REFERENCE PERSONS BY SEX OF PUPIL

BOYS

Praise: Teacher of last year vs. this year

	Last Yr.	This Yr.	*t*	P
MN	52.8	58.8	1.950	NS
SD	24.66	30.17		
N	69	69		

Scold: Teacher of last year vs. this year

	Last Yr.	This Yr.		
MN	54.0	56.8	.912	NS
SD	28.19	30.30		
N	66	69		

Praise: Mother vs. Father

	Mother	Father		
MN	51.0	55.4	1.120	NS
SD	26.38	30.09		
N	65	57		

Scold: Mother vs. Father

	Mother	Father		
MN	53.0	56.1	.875	NS
SD	25.26	32.85		
N	66	69		

Praise: Teachers vs. Parents

	Teachers	Parents		
MN	55.8	51.8	1.492	NS
SD	27.72	26.38		
N	138	122		
r				

Scold: Teachers vs. Parents

	Teachers	Parents		
MN	58.1	54.4	1.463	NS
SD	29.32	29.06		
N	135	121		
r				

TABLE 47 (Con't) PERSONAL DISTANCE ANALYSIS

REFERENCE PERSONS BY SEX OF PUPIL

GIRLS

Praise: Teacher of last year vs. this year

	Last Yr.	This Yr.	t	P
MN	59.4	64.9	2.209	< .05
SD	45.39	42.29		
N	89	90		

Scold: Teacher of last year vs. this year

	Last Yr.	This Yr.		
MN	69.6	70.9	.428	NS
SD	47.60	45.59		
N	89	88		

Praise: Mother vs. Father

	Mother	Father		
MN	59.6	63.9	1.702	NS
SD	40.44	38.60		
N	87	81		

Scold: Mother vs. Father

	Mother	Father		
MN	64.8	77.4	3.301	< .01
SD	43.24	46.98		
N	84	79		

Praise: Teachers vs. Parents

	Teachers	Parents		
MN	62.2	61.6	.203	NS
SD	43.94	39.62		
N	179	168		
r				

Scold: Teachers vs. Parents

	Teachers	Parents		
MN	70.2	70.9	.231	NS
SD	46.61	45.53		
N	177	163		
r				

TABLE 48: PERSONAL DISTANCE ANALYSIS

SEX ANALYSIS: ASSOCIATED VARIABLES

		Boys	Girls	t	P
Age	MN	14.2	14.1		NS
	SD	1.08	1.02	.346	
	N	69	90		
Alienation	MN	119.6	118.6		NS
	SD	22.84	22.44	.224	
	N	44	65		
Achievement Motivation	MN	70.8	73.7		NS
	SD	10.99	9.53	1.471	
	N	45	66		
Attitude Toward School	MN	51.5	55.0		
	SD	8.66	8.03	2.169	<.05
	N	45	67		

barely misses significance at the .05 level. It may be inferred that the girls are quite sensitive to disapproval and rejection, where such does not seem to be of much import to the boys. This conjecture is borne out by reference to Table 46 in which no differences between the praise and scolding situations are obtained for the boys, but of the four possible, two exceed the .01 level for the girls and that for the current teacher falls outside of the .10 limits. Again the girls appear sensitive to the teacher's and father's responses but not necessarily to the mother's.

When we compare the reference individuals by praise and scolding situations for boys and girls (Table 47), none of the differences reaches the .05 level; however, that for current vs previous teacher falls about the .06 level for the praise situation. The same task for the girls does attain statistical significance. Considering direction these differences show greater distance between the child and his present teacher than from his or her previous instructor. This may be a function of the reality of the immediate situation in which the current teacher, as any stranger, is probably held at greater distance.

The above hypothesis is tested by comparing the teachers with the parents for both the praise and scolding actions, and Table 47 reveals no significant differences between these referents. In fact, especially for the girls, the distances are remarkably similar. If this form of testing is valid, we have no evidence of dislike of teachers compared to one's own parents. Conversely, this writer is inclined to feel there is a good bit of respect and admiration for the teachers. It should be noted that one of the most common occupational aspirations listed by the students was teacher. As Wax (1964) noted there is much basis for friction between the students and teacher, but the children tended to like school, and this is also demonstrated in this study. The teachers are not excluded by any means from sharing in this positive feeling.

Hypothesis III I: The greater the distance at which a teacher is held by a child, the more alienated he will be.

Hypothesis IIIJ: Psychological Distance from a teacher will reduce with increasing achievement motivation.

Hypothesis IIIK: The more negative a child's attitudes toward the school, the greater will be the psychological distance at which he will hold a teacher.

These three hypotheses can be quickly treated together by reference to Table 11, page 146. Correlations were computed between the Personal Distance Items and the Theoretical Alien, Achmot, and ATS scores, and none attained significance, thus these hypotheses are supported. Following these data one step further, Table 48 reveals no differences on the Alien and Achmot scales between the sexes, but such does appear for the ATS Theoretical scale. As might have been expected the girls manifest significantly more positive views of the schools than the boys.

Summary of Findings on Attitudes toward School.

Behavior and performance within the classroom and school should be immediately referable to the perspectives children hold of the educational situation in which they find themselves. The position espoused here is that these outlooks and their associated actions exist within the context of socio-psychological conflict due to Indian-white differences and correlated class and economic factors. Evidence has been obtained here which, it is believed, verifies this theoretical framework. We have therefore seen that:

1. Intelligence and educational achievement increase with the holding of positive views of the school and teachers. The probable role of success experiences in this associational pattern cannot be overlooked.
2. Those who remain in school may buttress their position by viewing the school in more positive terms than those who do not continue their education. The utility of the school for success in later life is especially emphasized. At the same time as school continuation is tied to a perception of

its utility, there are some signs of increasing dislike of the teachers. Nevertheless, the Personal Distance data still leaves the impression that teachers are generally viewed in a constructive and positive manner.

3. Degree [illegible] Indianness relates tenuously to negativity of attitudes toward the school. Here the utility of the school and education seem most adversely affected by the phenomenon of being Indian. The gap between the Indian-poverty and the school settingsis undoubtedly greatest among those who tend to be full-bloods, hence education seems to be largely irrelevant for them in terms of their own background, and indeed objectively it is. Those that need education for the general culture the most are therefore least likely to obtain it. [illegible] These statements do exceed the data obtained, nevertheless they are not unreasonable inferences considering the total pattern elicited in this research.
4. Attitudes toward school become more negative as Alienation increases. The former may be one specific manifestation of the latter; however, this rather pervasive pattern of relationships does [illegible] put school outlooks into a broader psycho-social context that is essential if we are to understand the total picture of conflict and determination relative to the schools.
5. Achievement motivation is also a correlate of positive attitudes toward the schools. This completes the influential

matrix of within-child associations among Alienation, Achievement Motivation, attitudes toward school and school performance and continuation. The complexity of the situation thus precludes any reference to poor school performance and non-continuation as exclusively a function of the child vs the school in any restricted psychological sense.

6. At all grade levels on all measures, whites demonstrate markedly more positive views of the school and teachers than do Indian children in general or Indian Continuers in particular. Undoubtedly individual success experiences, the congruence of the school and home settings, and more broadly, the high valuation of education within the white milieu are involved here. Again the question of educational relevancy must be confronted.
7. On the basis of an experimental approach, no evidence was obtained to suggest truly negative perceptions of teachers as opposed to one's parents. Girls seem much more sensitive than boys to negative (scolding) reactions of teachers and parents. It could be tentatively inferred from the Personal Distance approach that the boys are relatively unresponsive to expressions of praise or disapproval by significant adults in their environment. There may be a shift to a peer reference by the seventh grade which takes precedence for

the males over females. The latter could still retain their adult referential framework.

8. Personal Distance from teachers does not seem to be a function of Alienation, Achievement Motivation or attitudes toward school, thus it is most probably an individual matter. On these last two conclusions, caution should be kept in mind considering the nature of the measurement introduced here.

Chapter VIII

Results and Discussion V: Child-School Relationships--Child-Rearing Experiences

We saw earlier that many explanations have been advanced for the poor educational performance of Indian children. Psychologists, antrhopologists and teachers suggest that the apparent indulgent-permissive child-rearing techniques employed by Indian mothers may have been culturally appropriate for a past time,but not today. Coping with an achievement oriented, competitive society is said to demand a more controlled, disciplined and directive home setting than found in traditional Indian families. In fact, evidence exists that achievement motivation in school and life is a function of home pressure to be successful plus the presence of parental models with high drives and aspirations. Both of these characteristics, it is argued, are not likely to be found in Indian families. This lack of an achievement focus may, in part, be due to remnants of the Indian heritage; however, it is also a concomitant of poverty, and, as we will see, Indianness and poverty go hand-in-hand.

In order to assess possible child-rearing correlates of school performance and behavior, an attempt was made to obtain information on such experiences two ways. First these were taken from the viewpoint of the student and second, from the position of the parent. Since different instruments were employed to gather these data, the degree to which they correlate is unknown; however, this approach offers a vehicle for understanding what actually is occurring and how these relate to the school situation. In this section, we will be concerned only with these experiences from the viewpoint of the child.

Hypothesis IV A: The more indications present that a child (from his own determination) has been exposed to what have been earlier described as permissive-indulgent child-rearing experiences (traditional Indian), the lower will be his measured achievement and intelligence.

The data in Table 49, though spotty, does seem to support the majority of the earlier findings regarding positive relationships between independence training, achievement pressures and parental directiveness and achievement (Crandall, 1963; Feld, 1959; McClelland and Friedman, 1952; Winterbottom, 1953; 1958). Interestingly, these associations hold most for the Indian Ss but are still suggestively present for the whites. In addition the correlations between intelligence and the child-rearing measures are quite theoretically meaningful relative to the developmental aspects of this domain.

Table 49

Correlations among Child-Rearing, Intelligence and Achievement Measures

Indians
CHREAR

r's	I	II	III	IV	V	VI
L-T-NV-IQ	-044	-114*	069	-154**	-175**	-173**
" V-IQ	052	-132**	-032	-222**	-145**	-169**
" T-IQ	001	-140**	026	-208**	-182**	-198**
KF-IQ	-059	-014	-116*	041	007	035
ITBS	167	022	251	-431*	391	-101
CAT-Raw Sc.	086	-187**	048	-273**	-131*	-247**
" -GP	069	-196**	031	-246**	-105	-232**
"%-ile	-012	-144**	-016	-204**	-115*	-170**
ITED-SS	-020	-006	-085	-030	039	028
" %-ile	-079	-008	-050	-067	-040	022
N's						
L-T-NV-IQ	396	396	396	396	396	396
" V-IQ	402	402	402	402	402	402
" T-IQ	394	394	394	394	394	394
KF-IQ	334	334	334	334	334	334
ITBS	22	22	22	22	22	22
CAT-Raw Sc.	279	279	279	279	279	279
" -GP	332	332	332	332	332	332
"%-ile	"	"	"	"	"	"
ITED-SS	349	349	349	349	349	349
" %-ile	"	"	"	"	"	"

*Significant at .05 level
** " " .01 "

Table 49 (Continued)

Correlations among Child-Rearing, Intelligence and Achievement Measures

Whites
CHREAR

r's	I	II	III	IV	V	VI
L-T-NV-IQ	115	-138	-093	-051	041	-018
" V-IQ	005	-231*	-068	012	-062	040
" T-IQ	010	-115*	063	-077	-101	-046
KF-IQ	060	-199	055	-107	061	-124
HN-IQ	-025	-051	101	-049	146	102
ITED-SS	-001	-148**	018	-077	001	-033
" %-ile	032	-182**	036	-103*	-028	-047
MAT	135	-159	123	-272**	-123	-117
ITBS	323**	125	-071	-012	039	027

N's						
L-T-NV-IQ	95	95	95	95	95	95
" V-IQ	"	"	"	"	"	"
" T-IQ	365	365	365	365	365	365
KF-IQ	68	68	68	68	68	68
HN-IQ	173	173	173	173	173	173
ITED-SS	426	426	426	426	426	426
" %-ile	"	"	"	"	"	"
MAT	131	131	131	131	131	131
ITBS	65	65	65	65	65	65

* Significant at .05 level
** " " " "

Considering intelligence first, we see that among the Indian children IQ increases with the child's perception of restrictive concern by the parent, meaning control (Chrear II), the presence of independence and responsibility training pressures in the home (Chrear IV), viewing the mother as kind and helpful (Chrear V) and a climate of mutual love and understanding between the mother and the child (Chrear VI). Chrear III correlates significantly only with the Kuhlmann-Finch, suggesting that the ability of the child to manipulate his maternal parent may also be a function of intelligence. The above finding with Chrear II is the only one which holds for the white youth. White-Indian differences in the number of significant correlations could be a result of less variation among whites, a tendency which seems plausible from later tables. This could further result from social desirability considerations in answering questions which imply a high value on behaviors that are most likely to be found among middle-class whites. There may be, of course, more uniformity across the homes of white than Indian children.

Turning to the findings on achievement, the same child-rearing scales correlate significantly with the CAT and ITBS among the Indian children in the same direction as with the intelligence scales. In other words, achievement seems to increase with the restrictive concern of the mother, independence and responsibility training in the home, the presence of a helping mother and an atmosphere of mutual love and understanding between the mother and the child. Similar findings occur for the whites on Chrear scales II and IV, but a moderate correlation obtains between the ITBS and Chrear I implying that among the white pupils, perception of the mother as rejecting and punishing is affiliated with low achievement.

The hypothesis offered here defined the child-rearing behaviors in terms of traditional Indian practices which are said to be permissive and indulgent, therefore to evaluate these observations some idea of how these scales may be defined relative to Indian-white differences needs to be gained. It should be noted, at this point, that we are not simply discussing Indian-white differences in child rearing, but by implication what most knowledgeable observers might designate as good and bad practices. Chrear scales I, V, and VI, respectively, rejecting punishment, the helping mother, and mutual love and understanding, describe relationships that should hold across both Indian and white mothers. It is possible that Chrear III, parental manipulation by the child, would also hold for both groups. If white and Indian mothers are distinguishable, the scales that should discriminate are Chrear II and IV, restrictive concern and independence training and responsibility. Both of these characteristics, according to the literature, would seem to be more representative of white middle class mothers rather than those of either lower class or Indian origin.

Given the above considerations, we may claim support for the hypothesis on the basis of the findings with Chrear II and IV for the Indian sample. The same trend holds for Chrear II with the whites but to much lesser extent. The results with Chrear V, the helping mother, may further represent an achievement orientation similar to that found in white society, hence its presence as significant for the Indian sample. Some of the item content for this scale could be so interpreted. We may therefore conclude that the theory offered here appears to have been partially confirmed.

Hypothesis IV B: Non-continuers in school will evidence greater exposure to traditional child-rearing experiences than continuers.

Reference to Table 50 appears to bear out this hypothesis. Significant differences are found in the direction theorized for grades 7 and 8 on Chrear scales IV, V, and VI. The continuers at this level apparently perceive their background as involving more independence and responsibility training, the presence of a helping mother, and a home atmosphere of greater mutual love

Table 50

Indian Continuers vs Non-Continuers
on Child Rearing Experiences

Grades 7-8	Non-Continuers			Continuers			
Variables	Mn	SD	N	Mn	SD	N	F
CHREAR I	37.9	10.70	49	38.6	8.50	311	<1
" II	13.9	5.05	"	13.4	4.45	"	<1
" III	6.5	2.28	"	6.9	1.96	"	1.238
" IV	8.6	3.94	"	6.8	2.48	"	19.597**
" V	12.7	6.02	"	10.1	4.78	"	11.585**
" VI	22.2	8.52	"	19.8	7.06	"	4.639**
Grades 9-12							
CHREAR I	39.9	7.37	59	40.5	7.57	334	<1
" II	14.0	4.85	"	12.7	4.00	"	4.863*
" III	6.8	1.96	"	6.7	1.73	"	<1
" IV	6.8	3.16	"	6.9	2.47	"	<1
" V	11.3	5.78	"	11.0	4.95	"	<1
" VI	19.2	7.20	"	18.8	6.47	"	<1
Grades 7-12							
CHREAR I	39.0	9.09	108	39.6	8.09	645	<1
" II	14.0	4.94	"	13.0	4.24	"	4.134*
" III	6.7	2.11	"	6.8	1.85	"	<1
" IV	7.6	3.65	"	6.8	2.48	"	8.089**
" V	11.9	5.94	"	10.6	4.89	"	6.875**
" VI	20.6	7.97	"	19.3	6.78	"	3.190

*Significant at .05 level
** " " .01 "

and understanding. The question may be raised to what extent the findings on Chrear VI are a function of the almost 40 percent of Pine Ridge families that are incomplete (Maynard and Twiss, 1969). Perception of lack of love and kindness within the home could easily result from the stress of making ends meet plus all of the other associated pressures found within the broken or strained family setting. If this is true, non-continuation may be correlated with the presence of a nuclear family with only one parent. It was shown earlier that low achievement motivation does seem to be a concomitant of a broken home or one in which friction exists between the parents (Thomas, 1956; Veroff et al, 1960), thus this conjecture may be worthy of additional exploration.

In grades 9 through 12, the only scale discriminating between the continuers and non-continuers is Chrear II, suggesting again that those who remain in school may have mothers who are inclined to carry out what are regarded as white child-rearing practices, here, restrictive concern.

The findings over all grade levels further support the hypothesis in that Chrear scales II, IV and V discriminate among the groups as expected. The obtained evidence is therefore strongly in favor of the hypothesis that continuation in school is associated with what are usually regarded as white and not necessarily traditional Indian child-rearing practices.

Table 51 offers some additional possibilities for explanation relative to continuation over grades. As frequently mentioned earlier, these data could change when the full extent of non-continuation is known. We do observe that non-continuers in the ninth through the twelfth grades, meaning those who have at least made it into high school, possess parents whom they see stressing independence and responsibility training (Chrear IV) more than do seventh and eighth grade non-continuers.

A number of significant differences are apparent between the continuers by grade levels. These are, in the main, similar to those already found and might have been expected. Those who continue on to high school are less likely to have mothers who are rejecting and punishing (Chrear I), nevertheless they are more likely to demonstrate restrictive behaviors that show concern and insecurity regarding their children (Chrear II). In contrast, seventh and eighth grade continuers perceive their mothers as more helpful and thoughtful than do the high schoolers. Later we will see that the same tendency obtains for the whites, thus we could be viewing the development of a "generation gap" with increasing age. It may also be that perceiving the mother as not helpful is less acceptable to the younger children who are probably closer to the mother than are those well into adolescence. In other words, the finding may be a function of the shift

Table 51

Comparisons of Indian Continuers and Non-Continuers over Grade Levels on Child Rearing Experiences

Non-Continuers	Grades 7-8			Grades 9-12			
Variables	Mn	SD	N	Mn	SD	N	F
CHREAR I	37.9	10.70	49	39.9	7.37	59	1.387
" II	13.9	5.05	"	14.0	4.85	"	<1
" III	6.5	2.28	"	6.8	1.96	"	<1
" IV	8.6	3.94	"	6.8	3.16	"	7.251**
" V	12.7	6.02	"	11.3	5.78	"	1.538
" VI	22.2	8.52	"	19.2	7.20	"	3.880
Continuers							
CHREAR I	38.6	8.50	311	40.5	7.57	334	9.681**
" II	13.4	4.45	"	12.7	4.00	"	4.172*
" III	6.9	1.96	"	6.7	1.73	"	1.797
" IV	6.8	2.48	"	6.9	2.47	"	<1
" V	10.1	4.78	"	11.0	4.95	"	5.056*
" VI	19.8	7.06	"	18.8	6.47	"	3.576

*Significant at .05 level
** " " .01 "

from a dependent to an independent status, and therefore be only weakly related to school continuation.

Hypothesis IV C: Traditional Indian child-rearing practices will relate positively to signs of Alienation.

Again we refer back to Tables 11 and 12 in order to evaluate this and the following hypotheses. One is immediately struck by the number of significant relationships found between these two classes of measures for both Indian and white students. In addition, there is excellent agreement across the two groups even though the white _S_s demonstrate a more comprehensive pattern of associations. Of the possible 42 significant correlations that could have occurred, 30 were obtained for the whites and 19 for the Indians. The complexity of these findings makes it quite difficult to assess the above hypothesis since the impression is generally gained that "good" child-rearing practices relate to a lack of alienation rather than there being any overriding distinction between Indian and whites. Nevertheless some signs are present that permit inferences relative to group tendencies.

For both Indians and whites, feelings of powerlessness appear to be concomitants of lack of mutual love and understanding (Chrear VI); however, the white children also show this alienation component relates to rejecting punishment by the mother (Chrear I), parental manipulation by the child (Chrear III), and lack of a helping mother. It might be conjectured that the results with Chrear III mean lack of manipulative success in the child's attempts to control his mother. The mother depicted in this pattern would seem to be punitive, rejecting, and unkind. None of these findings is, however, truly relevant to the hypothesis.

Alien II, a conformist Protestant Ethic orientation, significantly affiliates with all of the Chrear scales for both the Indians and whites with perfect agreement. Apparently this frame of mind occurs when the person can perceive his upbringing as not involving a rejecting and punishing mother (Chrear I), but one who still expresses a restrictive and concerned pattern of control behaviors in the home. This supports our hypothesis. In addition, we see a negative relationship between this conformist outlook and attempts to manipulate the mother (Chrear III). The question may be raised whether such manipulative efforts only occur in an atmosphere where there is either antagonism toward the mother or where she does not play what may be regarded as the controller role in the home. We also see that the Protestant Ethic outlook correlates positively with the presence of independence and responsibility training, a combination of characteristics that are implied in the above hypothesis and in the concept of the Protestant Ethic itself. As might have been expected from the findings with Chrear II and IV, there is a parallel association with the picture of a helping mother (Chrear V). Summarizing this we can affirm both the hypothesis that Alienation is a concomitant of what are thought of as traditional Indian child-rearing practices and also undesirable mother-child relations. It is not to be construed that these two go together as may be seen in Table 10.

Alien III, Meaninglessness, is similar to Powerlessness in its associations with child-rearing. For both Indians and whites, it is found in conjunction with a rejecting maternal orientation (Chrear I), lack of a helping mother (Chrear V), and the absence of mutual affection between the mother and the child (Chrear VI). Among white *S*s only, Meaninglessness, goes with lack of restrictive concern (Chrear II), possibly implying something commonly found among whites, namely that a permissive home doesn't necessarily make good sense to white children in American middle class society. Furthermore, this form of Alienation seems to be countered by independence and responsibility training (Chrear IV), which may also explain the finding of a positive association between Meaninglessness and attempts by the child to manipulate his mother. Bearing peripherally on the hypothesis, we can say that for the whites especially, a warm and loving home atmosphere in which controls and directions are present does negate feelings of Meaninglessness. For both the whites and Indians, good affectional relationships between the mother and the child also support the perception of a meaningful, ordered world.

The results with Alien IV, an anti-alienative hopeful friendliness, are restricted to Chrear scales V and VI. This outlook is positively correlated for both Indians and whites with a home climate of mutual affection and consideration, and for the Indians this includes the presence of a helping mother. The latter distinction from the whites is tenuous.

The foregoing trends continue with Psychosocial Isolation (Alien V) in that this seems countered by a positive home setting for both groups (Chrear VI), though the perception of a helping mother seems more relevant for the whites (Chrear V). Such isolation and a rejecting and punishing mother are affiliated in the eyes of the Indian pupils, and one may conjecture that the inculcation of feelings of affiliation in the Indian child are largely conveyed by positive reinforcement, an idea that is widely held by psychologists for children in general. Some workers in the area of Indian family life stress the especially strong cooperative and social nature of children from these homes as opposed to whites (Bryde, 1964), hence the lack of this finding among the whites.

The results with Normlessness (Alien VI) are markedly discrepant for the two groups. The only significant correlation for the Indians occurs with restrictive concern, is in the direction opposite to that predicted, and is, also borderline in magnitude. This writer is inclined to suggest the influence of chance here. Normlessness, therefore, appears quite independent of child-rearing experiences for the Indian children. In contrast, a thoroughly pervasive pattern of significant correlations is observed for the whites, and these are as might be theorized. A normless outlook is tied to a punitive and rejecting mother (Chrear I), and an unconcerned perspective on her part (Chrear II), plus a tendency for child manipulation of the parent (Chrear III), which by itself is supposed to represent normlessness in the white, middle class home. In addition, normlessness seems opposed by independence and responsibility training (Chrear IV), a supportive and helpful mother (Chrear V), and mutually positive affectional mother-child relationships (Chrear VI).

Examining the Theoretical Alienation Scale, we gain additional support for what has already been observed. The findings are in agreement for both the whites and Indians. Alienation increases with the mother's tendency to be rejecting and punitive (Chrear I), lack of restrictive concern (Chrear II, but only for the Indians), attempts by the child to manipulate his mother (Chrear III), lack of independence and responsibility training (Chrear IV), the absence of a helping mother (Chrear V), and finally a home setting without mutual affectional bonds between the child and the mother (Chrear VI).

Though the data relevant to Hypothesis IV C are complex, there is much reason to argue for it in these findings. While the results are more thoroughgoing for the white youth, they are definitely present among the Indian children. Perceiving the mother as helpful and desirous of making a contribution to the child's success appears to be of prime significance in lessened alienation; however, the role of independence and responsibility training is still impressive and this parallels the results with a restrictive concerned maternal system of child control. In other words, if the mother seems to have provided early direction and control, and also to have acted in a helpful manner from the child's viewpoint, alienation seems to be countered.

Probably of overriding significance in this entire pattern is evidence of mutual positive, affectional bonds between the mother and child. A rejecting and punitive approach, when perceived by the child, is particularly alienating. It can be theorized that attempts by the child to manipulate his mother are likely to be viewed openly as manipulative actions, when strain exists between the mother and the child. In toto these observations need to be placed in the context of the high proportion of broken and incomplete homes that exist on the reservation in addition to the poverty context in which family breakdown occurs. Deleterious child-rearing practices probably do result in alienation which in turn manifests itself in poor school performance and non-continuation of education. Both of these outcomes are tied to negative attitudes toward the school and low achievement motivation, and the pattern we see developing here relates to a tragic home situation which represents the kind of socio-economic deprivation endemic on the reservation. It would not appear enough to cite cultural differences as the sole precursors to what we have seen here. The low magnitude of the majority of the correlations obtained speak to a much broader set of factors involving the child, the school, and the home. We will continue to see this position borne out.

Hypothesis IVD: Traditional Indian child-rearing practices are associated with low achievement motivation.

Continuing our analysis of Tables 11 and 12, we see many signs supportive of this hypothesis and the relationship of a warm and loving home environment with achievement motivation for both Indians and whites.

High aspirations and drive (Achmot I) among the Indian youth tie into restrictive concern (Chrear II), independence and responsibility training (Chrear IV), the presence of a helping mother (Chrear V), and positive bonds between the mother and child (Chrear VI). These findings for Chrear IV and VI are also noted for the white Ss.

In contrast for the Indians, Achmot II, work anxiety, is associated with perceptions of a punitive rejecting mother (Chrear I), lack of restrictive concern (Chrear II), and efforts by the child to manipulate the mother (Chrear III). Only the result with Chrear II holds for the whites.

The data involving Achmot III are discrepant for the whites and Indians. On child-rearing scales I, V, and VI the coefficients are in the opposite direction with the Indian children manifesting tendencies to put forth little effort and to dislike reading being affiliated with punitive rejection, lack of a helpful mother and a loving home atmosphere. These relationships are reversed for the whites and no valid explanation seems evident considering the overall pattern of correlations up to this point. We again see that attempts by the Indian child to manipulate the mother (Chrear III) relate to low motivation to put forth effort.

As was theorized, a Calvinist work ethic (Achmot IV) is affiliated with restrictive concern and independence and responsibility training among the Indians. The latter relationship obtains for the whites, but not the former. Again, there is a directional discrepancy which does not appear explainable, unless the borderline coefficient is simply a chance phenomenon. For both whites and Indians, this work orientation is positively correlated with a helpful mother and a loving and understanding mother-child association. For the Indian Ss such an outlook is opposed to manipulative tendencies on the part of the child.

Finally, the theoretical Achmot scale reveals a thoroughly supportive pattern of relationships with all of the Chrear scales, while only Chrear VI holds for the whites.

The results are extremely clear for the Indian Ss and somewhat less conclusive but supportive for the whites. Achievement motivation is a function of child-rearing experiences that are usually regarded as part of middle-class white culture and not traditional Indian. Nevertheless, a warm and constructive home setting with positive affectional bonds between the mother and child, whether Indian or white, does correlate with achievement motivation. The hypothesis is thus supported.

Hypothesis IVE: Traditional Indian child-rearing practices will correlate with negative attitudes toward the school.

Examining these correlations in Tables 11 and 12, one is immediately struck by the large number of significant relationships plus their higher magnitude. Twenty-seven of 30 coefficients computed attain significance for the Indians and 26 for the whites, and in all instances where the relationships are meaningful for both groups, there is perfect agreement in direction.

The findings are abundantly clear. Positive attitudes toward continuing school, the teachers, rationally liking school and seeing its utility are consistently associated with perceptions of a wholesome home setting, affectional relationships with the mother, and the definite presence of restrictive concern and independence and responsibility training. The hypothesis would appear to be strongly supported.

Hypothesis IVF: Traditional Indian child-rearing practices will be a positive function of degree of Indianness.

The data in Tables 52 and 53 bear on this hypothesis, and essentially no evidence in its behalf can be adduced. Of some interest, however, is the observation on Chrear VI for the ninth through twelfth graders that the 3/4 and full-blood students perceive their relationships with their mothers as possessing significantly more mutual love and understanding than the mixed blood pupils with ½ or less Indian "blood". Though not statistically significant, the direction of the differences for grades seven and eight on this measure are in the opposite direction, thus much care must be exercised if anything is to be made of this apparent trend.

Table 52

Correlations of Child Rearing Experiences with Degree of Indian "Blood"

	r[1]	N
CHREAR I	043	746
" II	056	"
" III	050	"
" IV	014	"
" V	024	"
" VI	-062	"

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[1] Decimal points omitted

Table 53

Comparison of Indian "Blood" Groups on

Child-Rearing Experiences by Grade Levels

	Degree of Indian "Blood"												
	1/4			1/2			3/4			4/4			
Grades 7-8	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	F
CHREAR I	37.5	8.88	26	39.0	8.12	68	37.8	10.29	51	38.8	8.63	211	<1
" II	13.5	3.12	"	12.4	4.68	"	12.6	3.60	"	14.0	4.74	"	2.725
" III	7.0	1.97	"	6.7	1.84	"	6.5	1.90	"	6.9	2.09	"	<1
" IV	7.0	2.01	"	6.9	2.80	"	6.9	2.97	"	7.2	2.85	"	<1
" V	9.6	3.66	"	9.7	5.62	"	11.4	5.44	"	10.6	4.87	"	1.502
" VI	19.4	6.04	"	18.8	7.54	"	21.1	7.05	"	20.3	7.31	"	1.173
Grades 9-12													
CHREAR I	39.7	6.51	37	39.1	8.09	94	40.6	7.52	75	41.2	7.41	184	1.667
" II	12.9	3.64	"	13.5	3.84	"	12.3	4.51	"	12.9	4.25	"	1.107
" III	6.7	1.64	"	6.4	1.72	"	6.6	1.73	"	6.9	1.80	"	1.912
" IV	6.7	2.27	"	7.2	2.75	"	6.9	2.42	"	6.8	2.62	"	<1
" V	11.2	6.01	"	11.4	5.09	"	10.7	5.17	"	11.0	4.81	"	<1
" VI	20.7	6.90	"	21.2	6.75	"	18.5	6.69	"	17.4	5.90	"	8.590**
Grades 7-12													
CHREAR I	38.8	7.66	63	39.1	8.04	162	39.4	8.85	126	39.9	8.18	395	<1
" II	13.1	3.45	"	13.0	4.21	"	12.4	4.17	"	13.5	4.55	"	2.042
" III	6.8	1.79	"	6.5	1.78	"	6.6	1.80	"	6.9	1.96	"	2.137
" IV	6.8	2.17	"	7.0	2.72	"	6.9	2.66	"	7.0	2.75	"	<1
" V	10.5	5.23	"	10.6	5.28	"	11.0	5.29	"	10.8	4.85	"	<1
" VI	20.2	6.59	"	20.1	7.13	"	19.6	6.96	"	19.0	6.84	"	1.408

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*Significant at .05 level
** " " .01 "

Hypothesis IV G: White youth will perceive themselves as coming from more restrictive and controlling homes than their grade-level Indian opposites.

Examining first the outlook of the Indian and white children relative to Chrear scales II and IV, in Table 54 we see a reversal on the former between the grade levels, both of which attain statistical significance, while on the latter the direction is consistent and also significant for all grade breakdowns. With regard to restrictive concern (Chrear II), the findings for grades seven and eight are supportive of the hypothesis, but not so for the upper grades. It is possible that the mothers of the Indian children may be more controlling along these lines if the Indian child is to proceed on to high school, nevertheless for all levels, the white mothers are perceived as stressing independence and responsibility training to a greater degree than their Indian counterparts. In addition, among the junior high school students, white mothers are viewed as more helpful and their relationship with the child is taken as more positive in general. The first observation also holds over all grade levels.

Comparing the whites with the Indian continuers (Table 55) the findings match almost perfectly with the above analysis. We may therefore conclude that the hypothesis is, in the main, supported.

Table 54

Indians vs Whites

on Child-Rearing Experiences by Grade Levels

Grades 7-8	Indians			Whites			
Variables	Mn	SD	N	Mn	SD	N	F
CHREAR I	38.5	8.84	360	37.6	6.31	170	2.233
" II	13.5	4.54	"	12.6	3.24	"	4.542*
" III	6.8	2.01	"	6.6	1.39	"	1.595
" IV	7.0	2.80	"	6.1	1.42	"	16.448**
" V	10.5	5.05	"	9.5	4.46	"	4.190*
" VI	20.2	7.32	"	18.6	5.93	"	5.945*
Grades 9-12							
CHREAR I	40.4	7.54	393	39.9	7.01	532	1.171
" II	12.9	4.16	"	13.6	3.71	"	7.001**
" III	6.7	1.76	"	6.6	1.48	"	1.345
" IV	6.9	2.59	"	6.5	2.12	"	4.786*
" V	11.0	5.08	"	10.4	5.47	"	2.556
" VI	18.9	6.59	"	19.0	6.35	"	<1
Grades 7-12							
CHREAR I	39.5	8.25	753	39.8	6.85	702	<1
" II	13.2	4.36	"	13.4	3.62	"	<1
" III	6.8	1.89	"	6.6	1.46	"	3.968*
" IV	7.0	2.69	"	6.4	1.98	"	17.403**
" V	10.8	5.07	"	10.2	5.26	"	3.710*
" VI	19.5	6.98	"	18.9	6.25	"	2.847

*Significant at .05 level
** " " .01 "

Table 55

Indian Continuers vs Whites by Grade Level on Child Rearing Experiences

Grades 7-8		Indian Continuers			Whites			
Variables		Mn	SD	N	Mn	SD	N	F
CHREAR	I	38.6	8.50	311	39.6	6.31	170	2.144
"	II	13.4	4.45	"	12.6	3.24	"	5.092*
"	III	6.9	1.96	"	6.6	1.39	"	3.815
"	IV	6.8	2.48	"	6.1	1.42	"	15.517*
"	V	10.1	4.78	"	9.5	4.46	"	1.891
"	VI	19.8	7.06	"	18.6	5.93	"	3.924*
Grades 9-12								
CHREAR	I	40.5	7.57	334	39.9	7.01	532	1.365
"	II	12.7	4.00	"	13.6	3.71	"	10.989*
"	III	6.7	1.73	"	6.6	1.48	"	<1
"	IV	6.9	2.47	"	6.5	2.12	"	6.014*
"	V	11.0	4.95	"	10.4	5.47	"	2.779
"	VI	18.8	6.47	"	19.0	6.35	"	<1
Grades 7-12								
CHREAR	I	39.6	8.09	645	39.8	6.85	702	<1
"	II	13.0	4.24	"	13.4	3.62	"	3.448
"	III	6.8	1.85	"	6.6	1.46	"	4.819*
"	IV	6.8	2.48	"	6.4	1.98	"	10.662**
"	V	10.6	4.89	"	10.2	5.26	"	2.099
"	VI	19.3	6.78	"	18.9	6.25	"	1.262

*Signficant at .05 level
** " " .01 "

Noting the changes that seem to relate to grade level, as these are offered in Table 56, continuation in school among the Indian Ss apparently ties to a more constructive mother-child relationship in that rejecting punishment is perceived as less and there is greater mutual love and understanding on the part of the highschoolers. A somewhat different pattern emerges for the white pupils. The younger ones see their home life as possessing more concerned restrictiveness, independence and responsibility pressures, plus a more helpful mother than do the older whites. Greater closeness to the mother and conformity by those in grades seven and eight may be revealed here. The lack of differences on the other scales for the whites could be a function of the general expectancy that regardless of child-rearing experiences one goes on to high school, while among the Indians, a positive home atmosphere is a spur to the continuance of education. The apparently greater similarity of high school Indians and whites is thus accounted for. In all of this, however, the reader must keep in mind the markedly discrepant socioeconomic status of the Indians and whites and what such differences portend for home life in terms of economic deprivation and strain.

Summary of Child Rearing Findings

If we can take as valid the child's view of his experiences relative to his mother and how he was brought up, there is little

Table 56

Indians and Whites, Grades 7-8 vs 9-12

on Child Rearing Experiences

Indians	Grades 7-8			Grades 9-12			
Variables	Mn	SD	N	Mn	SD	N	F
CHREAR I	38.5	8.84	360	40.4	7.54	393	10.939**
" II	13.5	4.54	"	12.9	4.16	"	3.070
" III	6.8	2.01	"	6.7	1.76	"	<1
" IV	7.8	2.80	"	6.9	2.59	"	<1
" V	10.5	5.05	"	11.0	5.08	"	2.261
" VI	20.2	7.32	"	18.9	6.59	"	6.311*
Whites							
CHREAR I	39.6	6.31	170	39.9	7.01	532	<1
" II	12.6	3.24	"	13.6	3.71	"	9.135**
" III	6.6	1.39	"	6.6	1.48	"	<1
" IV	6.1	1.42	"	6.5	2.12	"	5.770*
" V	9.5	4.46	"	10.4	5.47	"	3.951*
" VI	18.6	5.93	"	19.0	6.35	"	<1

*Significant at .05 level
** " " .01 "

doubt that child-rearing does relate meaningfully to educational behavior.

1. There are indications, both for Indians and whites, that IQ and school achievement are a function of maternal control plus independence and responsibility training in the home. In other words, what have been usually discussed by anthropologists as traditional Indian child rearing techniques are not likely to eventuate in the kind of capacity or achievement that relates to school success. In part, this is mitigated by the finding that a home climate of mutual love and understanding does tie to intelligence and school performance in a positive manner.
2. School continuation among Indians is related to the presence of restrictive concern, independence and responsibility training, and a pattern of positive mother-child affectional relationships.
3. A concerned, controlling mother who stresses independence and responsibility in her children and who is seen as helpful, kind and understanding seems to counter the development of adolescent alienation.
4. Achievement motivation is a function of child-rearing experiences of a white, middle-class variety plus a wholesome and affectionate home setting.

5. Attitudes toward school clearly relate to child-rearing in the same manner and direction as with Alienation and Achievement Motivation.
6. Traditional child-rearing practices as perceived by the child do not relate to Indianness.
7. In general, whites show more of the kind of restriction and control plus independence training than do Indian children. Rather than this simply being a function of Indian-white differences, it may to a greater degree reflect class distinctions.
8. In summary, ability, educational performance, and constructive outlooks toward the world, the school and achievement are positively associated with maternal concern and control where such takes place with an atmosphere of mutual love and understanding between the mother and child. The problem of lower class status as manifested in a high incidence of broken and incomplete families plus the great strain on family life that is found on the reservation probably account for many of the negative features of child-school relationships.

Chapter IX

Child-School Relationships: The Role of Sex

A very extensive literature avers that girls conform more to the requirements of the school setting and demonstrate a higher level of achievement than boys throughout their educational career (Anastasi, 1958). This is relevant to the present study, but up to this point, little mention has been made of sex differences relative to the various measures employed here. Reference to this variable in the Personal Distance analyses was necessitated by the very obvious sex effects noted. MacGregor (1946) and Bryde (1964) discuss possible sex factors in personality and socialization among Sioux youth, and when these considerations are joined with the findings of Jessor and his coworkers (1968) a rather extensive list of hypotheses could be developed. The relevance of such an effort in the present research would seem secondary. For this reason the following brief overview of relationships of sex to all of the child variables is offered.

Tables 57 and 58 provide correlations between sex (coded: male = 0; female = 1) and all of the other measures for both the Indians and whites. Examining these data, we observe that no significant associations obtain between sex and the intelligence and achievement scales for either group. A number of statistically significant coefficients were found with the

Table 57

Sex Analyses - Indian

Child Variables[1]

Variables	r	N
Intelligence		
L-T-NV-IQ	-014	396
" V-IQ	-001	402
" T-IQ	-010	394
KF-IQ	-004	334
Achievement		
CAT-Raw	-016	279
" -GP	-024	332
"%-ile	025	332
ITED-SS	-059	349
" %-ile	-044	349
ITBS	-005	22
ALIEN I	-143**	782
" II	-021	782
" III	-026	782
" IV	102	782
" V	-162**	782
" VI	-010	782
Theoretical	089*	715
ACHMOT I	126**	782
" II	-128**	782
" III	-018	782
" IV	075*	782
Theoretical	074*	782
n-ACH	012	711
EOG	-157**	410
WORS	102*	412
HN-I	-280**	412
HN-II	-114*	412

---

[1] Sex Code: 0 = Male, 1 = Female
* Indicates significance at .05 level
** " " " .01 "

Table 57 (Cont'd)

Variables	r	N
ATS I	-078*	782
" II	-015	782
" III	056	782
" IV	-092*	782
Theoretical	048	782
CHREAR I	154**	782
" II	-214**	782
" III	079*	782
" IV	-051	782
" V	-077*	782
" VI	-081*	782

Table 58

Sex Analyses - White

Child Variables[1]

Variables	r	N
Intelligence		
L-T-NV-IQ	-093	133
" V-IQ	010	133
" T-IQ	043	444
KF-IQ	214	74
HN-IQ	086	208
Achievement		
ITED-SS	012	514
" %-ile	029	514
ITBS	023	65
MAT	136	164
ALIEN I	-042	706
" II	-052	706
" III	164**	706
" IV	-022	706
" V	-061	706
" VI	234**	706
Theoretical	-073*	711
ACHMOT I	127**	706
" II	-117**	706
" III	059	706
" IV	060	706
Theoretical	-045	706
n-ACH	189**	557
EOG	002	571
WORS	224**	572
HN-I	-048	572
HN-II	-149**	572

---

[1] Sex Code: 0 = Male, 1 = Female

* Indicates significance at .05 level

** " " " .01 "

Table 58 (Cont'd)

Variables	r	N
ATS-I	-150**	705
" II	-075*	705
" III	156**	705
" IV	036	705
Theoretical	144**	705
CHREAR I	170**	698
" II	-125**	698
" III	-027	698
" IV	-131**	698
" V	-017	698
" VI	-086*	698

attitude orientation scales; however, caution must be exercised in the interpretation of these results because of their often borderline nature and low magnitude.

Considering first Alienation, we note that the whites and Indians tend to manifest different patterns by sex. Where Indian girls appear to feel more powerless, psychosocially isolated and alienated in general than their male peers, white boys perceive their situation to be more meaningless, normless and themselves to feel more alientated in toto than do white girls. One might speculate that Indian girls see their life circumstances as more stark and grim than their white counterparts who feel the world is quite open to them. Male perceptions appear to be the reverse of these by groups. Cultural roles may, in part, contribute to these perspectives.

The reasons for the above outcomes are still unclear considering the finding that within both groups, males have the higher aspirations and drives to succeed (Achmot I), and seem less anxious and concerned about work (Achmot II). Though Indian males are more Calvinist work-ethic oriented than Indian girls, no similar differences occur among the whites--a trend which may again reflect cultural pressures. Nevertheless, in keeping with some of the previous work (Heckhausen, 1967), white girls are generally more achievement oriented than white boys. With regard to occupational aspirations, the findings within each group are as inconsistent as they are across the groups. On the Edwards and North-Hatt scale I, Indian girls manifest higher aspirations than their male fellow students. This situation reverses for the Warner and North-Hatt II scales. The latter two results are of borderline significance and could be chance produced. The meaningfulness of these occupational schema for the Indian youth was questioned earlier. If chance is operating we may infer that Indian girls set their occupational sights higher than Indian boys. In contrast, white boys show higher job aspirations than white girls, a finding which would seem to be culturally compatible with the middle class male work ethic.

In line with previous research showing girls to be more conforming in reference to institutional settings, both Indian and white girls appear more positive toward continuing their education (ATS I). For white girls, this trend shows greater consistency in that they see school as more useful and regard the teachers more favorably than do white boys who are generally more negative to school (ATS Theor.). On rational grounds, Indian girls seem to dislike school more than Indian boys.

Sex differences are slightly more regular with regard to child rearing experiences. In both groups, the boys perceive greater rejecting punishment on the part of their mothers (Chrear I), while the girls view their home life as manifesting more maternal restrictive concern. The latter also perceive their background as involving more independence and responsibility training than is true for white boys (Chrear IV). In addition girls from both groups see their relationship with their mothers as more one of mutual affection and understanding than do boys (Chrear VI). Jessor et al (1968) reports, as have others, that mothers claim they are closer to their daughters than their sons. In support of this, Indian girls also view their mothers as more helpful to them (Chrear V). The distance of Indian boys from their mothers may be reflected in the tendency of the boys to claim that they consciously manipulate their mothers more than do the girls.

Sex influences appear to be present in one's orientations to the world, school, and to oneself in terms of child-rearing experiences. These do vary across the Indian and white groups, but they do not appear as significant dispositions relative to actual ability and achievement within the educational setting as these are assessed here. The results obtained for the Indian students on the Alienation and Achievement Motivation scales suggest a greater potential for school success on the part of the boys. Programs to effect improvements in performance and school continuation rates may therefore accomplish more among the boys than the girls. This conjecture is put forward most cautiously, because of the apparently greater desire of girls to continue their schooling.

The role of male and female models within the Indian-poverty setting may be noteworthy here. Considering the mother as the main "culture-carrier", white mothers are inclined to impress upon their children, especially their daughters, positive valuations of the school. This would not necessarily appear to be true for the Indian children, certainly not to a similar degree. Comparatively speaking, one may ask if Indian women find their cultural and economic circumstances, of such a nature, that they more readily adopt a passive, powerless and alienated pattern of outlooks and roles than is true of white women. Some of these data tend to affirm such a contention. In brief, academic success and advancement may therefore be more congenial to Indian males than females. The achievements of the many educational innovations occurring on the reservation should be evaluated relative to such a possibility.

We may conclude that the data obtained here on sex influences is probably more meaningful with regard to the potential of schooling than what such has represented in the past or even in the immediate present.

Chapter X

Child-Home Relationships

As will be remembered, one of the main difficulties in analyzing and drawing implications from the parent data centers about the unreliability of some of the measures applied to this group. Not infrequently there was more variation among the items in a "scale" than there was across the subjects. In some instances, agreement by the Indian mothers was so great that even though reliability was nil, much might be inferred from examining the direction of the responses. Many of these summary results can, however, be supplemented with remarks recorded by the interviewers, therefore providing a more complete and valid picture. In order to convey the position of the mothers and mother surrogates, the pattern of group responses on each item within the context of each theorized scale is presented, since the low reliability of many of these item groups precludes the usage of summary scores which might have been expected to correlate with other measures. It will therefore not be possible to evaluate hypotheses relating the child and the home where essentially no variation exists for one of the referents. Nevertheless much information can be gained by a detailed examination of the parental outlook in the domains assessed.

Hypothesis C-H* A: As parental attitudes toward education in general, local schools in particular, and the government become more negative, the child should demonstrate high alienation, low achievement motivation and negative attitudes toward school.

The very low reliabilities obtained with the measure of parental attitudes toward education prevent us from relating these views to any of the children's attitude-orientation scales. Table 59 illustrates very clearly the lack of variation across the parental subjects. It is abundantly evident that the Indian mothers are exceedingly positive toward education in general. The pattern of these responses would more than do justice to any stereotype of what white middle class opinions are supposed to be in this area. Not only do these Indian women perceive education as essential to success in life, but they also desire that the children continue their education and do well in school. As they look back on their own past, they usually reflect that they did enjoy the school situation and now wish that they had pursued it further.

Examining the anecdotal comments of the mothers, when the question of continuing on to college is raised, reference is commonly made to the expense involved. Though we may be viewing a form of rationalization, it would be of interest to know

---

*C-H stands for Child-Home.

Table 59

Response Frequencies for Parental Attitude Toward Education Items

Questions	Response[1]	Results Frequency	%
Do you think the children around here really should try to graduate from high school?	Yes	203	99.0
	?	2	1.0
	No	0	0.0
Do you feel that if the children quit school they will really miss anything important?	Yes	198	96.6
	?	3	1.5
	No	4	2.0
Should the children here go on to college if they finish high school?	Yes	200	97.6
	?	4	2.0
	No	1	.5
Do you think school helps the children to make a better life for themselves?	Yes	204	99.5
	?	0	0.0
	No	1	.5

Reliability = .078

[1] Each item provided for an extended, open-ended response. Those classified as "Yes" or "No" are fixed and without any qualification. "?" indicates responses which overwhelmingly could be taken as positive; however, they do involve a quality of indefiniteness and/or qualification. In designating "?", a very liberal stance was adopted in order to maximize the potential of any doubt or lack of clarity in either the mind of the respondent or the interviewer. This footnote applies to all of the following tables with similar information.

Table 59 (Con't)

Questions	Response	Results Frequency	%
Should the children work hard and get good grades in school?	Yes	204	99.5
	?	0	0.0
	No	1	.5
Do you wish now that you had gone farther than you did in school?	Yes	202	98.5
	?	0	0.0
	No	3	1.5
When you went to school, did you enjoy it?	Yes	197	96.1
	?	0	0.0
	No	8	3.9

how widespread knowledge is of scholarship funds for Indian children to undertake the college experience. In a number of instances, the idea of some kind of vocational training is stressed in lieu of continuing such formal education. A few remarks are directed at the need for encouraging the children to go to college, but who should do this is not clear. Some bitterness was expressed by the mother of a tenth grader who appeared to feel that a college education would be given "if our Indian children are not deprived of their constitutional privileges." The need for clearing up such misconceptions is evident; however, the general position held was well stated by one mother who claimed: "I truly believe a higher education will save our people."

One's own school experiences are reported in most positive terms though some qualifications are given with regard to when school was liked or disliked and what feature of education occasioned these feelings. A few reported that the vocational training caused them to lose interest, but overall, the mothers remembered their schooling in extremely satisfying terms. The best summarizing illustration of these feelings may be found in Table 59 where we see that 96 percent of the respondents claimed they enjoyed school and over 98 percent express the wish that they had continued their education.

In contrast to the attitudes toward education in general, those toward the school in particular appear to form a reliable scale. In Table 60, however, the responses to the individual items of this instrument are given, and even though we see greater variation in each question strong positive expressions of outlook toward the schools and their personnel prevail. About 80 percent of the mothers interviewed perceive the teachers as wanting to do that which is best for the children while a slightly smaller proportion (72.7) believe that the teachers understand the children. This squares well with the parent's view that the children generally like to go to school.

Examining the parent's remarks about the teachers and schools, one is struck by the considerable appreciation shown for the efforts of local educators plus parental sophistication regarding the need for additional cooperation between the teachers and parents. A number of mothers also comment that many of the teachers are poorly trained to handle minorities and are thus "unqualified to deal with problems in the area." As one mother succintly stated; the teachers should "understand they are teaching a child of a different race and should try to make them feel equal." Apparently there is some feeling that the personnel at the Mission school are especially sensitive to and understanding of the child's needs.

Even criticism is often tempered by grudging admiration. Some mothers who claim that the teachers are doing a good job feel they are doing such more "for their own advancement than

Table 60

Response Frequencies for Parental Attitude Toward School Items

Questions	Response	Results Frequency	%
Do you feel that the teachers and principals want to do that which is good and best for the children?	Yes	166	81.0
	?	34	16.6
	No	5	2.4
Do you think that the teachers understand the children?	Yes	149	72.7
	?	26	12.7
	No	30	14.6
Do the children around here like to go to school?	Yes	152	74.1
	?	24	11.7
	No	29	14.1

Reliability = .750

for the good of the children." Quite frequently, remarks are offered about simply working for the money and not for the children. Specifically these concern the desires of the parent for the teacher to put in extra time working with the pupils. A few mothers assert "there is not enough firmness in school work" and "discipline should be enforced."

Two considerations stand out with respect to the parent's perception of the child's liking of school. Though most view this positively, some of the mother's criticize their own group for not "caring if the kids go to school", and therefore claim that "all (children) need is pushing." In addition, attention was focused by a few mothers on fighting and stealing in the dormitories at the boarding school and how this creates fear and negativism toward school.

The relationship between maternal attitudes toward the school and the child's outlook is most tenuous (Table 61). On Alien IV, one of the few isolated significant findings, we see that as the parent's view of the school becomes positive so does the child's belief in a friendly hopeful future. A similar tendency is shown with ATS IV suggesting that positiveness of parental attitude toward the school parallels a rational liking of the school by the child. Both of these correlations are low in magnitude and of borderline significance, though

Table 61

Correlations of Parental Attitude Toward the School and Child's Attitude-Orientation Measures (N=206)

	r
ALIEN I	-034
" II	041
" III	007
" IV	157*
" V	029
" VI	-011
Theoretical	068
ACHMOT I	-059
" II	-044
" III	050
" IV	-008
Theoretical	-072
ATS I	084
" II	-012
" III	013
" IV	-129*
Theoretical	-049

*Indicates significance at .05 level

they are as predicted, thus tentative support is gained for the hypothesis.

Table 62 presents the response pattern for the two attitudes toward government items. These questions were included as a possible check on the validity of the other data since much is made of a possible negativism of the Indians toward local "government people." It was felt that biases in the positive direction might be revealed if these responses were overwhelming in their approval. Interrogation of the interviewers by the writer leads him to conclude that the answers reported are valid and do accurately represent the feelings of the Indian mothers who participated in the study. The relatively low reliability of this "scale" could have been expected considering the usage of only two items, nevertheless for speculative purposes, we may still refer to Table 63 for some idea of possible relationships between the mother's outlook in this realm and the child's attitudes. As may be seen, no significant r's were obtained, a finding which could be a result of the relatively low reliability of the ATG "scale", but in all likelihood the problem of correlating variables across the domains of parent and child is an exceedingly complex one which brings into play many confounding factors. The grossness of much of the measurement in the parental realm is undoubtedly

Table 62

Response Frequencies for Attitude Toward the Government Items

Questions	Response	Results Frequency	%
Are the government people trying to help out around here or are they out for themselves and their friends?	Trying to help out	130	63.4
	Out for themselves	72	35.1
	?	4	2.0
Are the government people interested in your problems?	Yes	134	65.4
	?	17	8.3
	No	54	26.3

Reliability = .589

Table 63

Correlations of Parental Attitude Toward the Government and Child's Attitude-Orientation Measures (N=206)

	r
ALIEN I	-036
" II	081
" III	-093
" IV	115
" V	-031
" VI	-024
Theoretical	-045
ACHMOT I	124
" II	069
" III	-002
" IV	017
Theoretical	035
ATS I	011
" II	017
" III	-018
" IV	-103
Theoretical	-043

a significant part of this picture. It should also be noted that the parental ATS and ATG scales correlate only .185 ($p < .01$), significant but low.

Some of the relationships for which we are searching may be approached via the group breakdown and parental selection procedure discussed on pages 151-154. To briefly repeat, all children on whom intelligence, achievement, and Theoretical Alienation data were available had these scores transformed into percentile and standard score equivalents. The two distributions were almost perfectly matched on all variables. Students whose IQ's fell between the 30th and 70th percentile were then selected. These were subdivided into four groups: Group 1 contained those whose achievement and alienation scores fell below the 50th percentile; Group 2 included pupils whose achievement was above the 50th percentile, but with alienation scores below this point; Group 3 was reversed with Ss having achievement scores below and alienation scores above the 50th percentile; and lastly Group 4 had pupils with both alienation and achievement scores above the 50th percentile. Tables 64 and 65 contain all of the data pertinent to this breakdown.

Examination of the Achievement and Theoretical Alienation data demonstrates the sharpness with which the groups were formed. Some difficulty exists with regard to the attempt to match the groups on the IQ scores. They are comparable on the

Table 64

Comparison of Parent-Child Groups on Intelligence, Achievement, and Associated Child and Parent Variables[1]

	Group												
	1			2			3			4			
Variables	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	F
Parent													
Blood	5.7	2.13	58	5.7	1.93	39	6.7	1.95	52	6.2	2.02	50	2.772*
SES	43.9	9.78	59	40.8	8.80	"	45.8	10.15	57	42.9	9.34	51	2.117
ALIEN	6.1	3.24	"	6.3	3.60	"	7.3	3.99	"	7.0	3.44	"	1.297
Child													
Sex	.46	.50	59	.46	.50	39	.54	.50	57	.53	.50	51	<1
Blood	5.6	2.07	"	5.9	1.92	"	6.3	2.23	"	6.5	1.94	"	1.974
Intelligence													
L-T-NV-IQ	101.3	6.71	38	100.8	9.25	26	100.2	9.39	44	99.4	5.51	27	<1
" V-IQ	92.2	5.43	"	99.2	7.22	"	92.9	6.92	"	97.0	6.44	"	8.097**
" T-IQ	96.7	5.71	"	99.9	7.03	"	96.5	5.88	"	98.2	5.69	"	3.236*
KF-IQ	96.7	3.88	30	97.0	4.97	19	98.8	6.36	20	96.5	4.83	28	<1
Achievement													
CAT-Raw	189.6	21.84	19	258.5	34.80	15	184.3	20.42	21	250.0	25.33	18	39.753**
" -GP	6.8	.52	"	8.4	.93	"	6.7	.50	"	8.2	.60	"	32.797**
"%-ile	26.2	17.30	"	64.3	16.62	"	30.9	13.22	"	62.4	11.86	"	31.471**
ITED-SS	8.8	2.80	37	13.6	2.67	20	8.2	2.31	36	13.8	3.06	32	36.513**
" %-ile	25.5	10.06	"	53.4	11.56	"	22.4	8.39	"	48.9	14.04	"	58.530**

[1] These data are for Grades 7-12

*Indicates significance at .05 level

** " " " .01 "

Table 65

Comparison of Parent-Child Groups on

Selected Parent-Child Attitude-Orientation Variables[1]

	Group												
	1			2			3			4			
Variables	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	F
Parent													
ATS	1.7	2.76	59	2.0	2.72	39	1.6	2.33	57	2.9	3.07	51	2.311
ATG	2.4	2.98	"	1.6	2.97	"	2.3	3.07	"	4.0	3.34	"	4.975**
Child													
ACHMOT I	5.2	3.30	59	5.5	3.40	39	5.8	4.09	57	5.5	3.44	51	<1
" II	8.2	3.16	"	7.7	2.84	"	5.9	2.64	"	7.0	2.70	"	6.845**
" III	14.6	2.81	"	15.3	2.45	"	14.9	4.69	"	15.0	4.00	"	<1
" IV	3.8	2.64	"	3.9	2.59	"	4.1	2.54	"	4.1	2.82	"	<1
Theoretical	46.4	12.63	"	46.5	11.89	"	51.0	14.17	"	49.9	11.63	"	1.784
n-ACH	8.0	4.13	"	7.7	3.94	37	5.9	3.63	53	7.3	4.15	48	2.916*
EOG	2.8	2.15	36	2.3	1.68	20	3.2	2.76	22	2.7	2.31	32	<1
WORS	2.5	1.24	"	2.2	1.22	"	2.7	1.21	"	2.3	1.31	"	<1
HN-I	3.2	1.62	"	2.8	1.42	"	3.4	1.75	"	3.5	1.87	"	<1
HN-II	75.2	8.19	"	74.4	7.86	"	74.6	7.36	"	75.2	9.28	"	<1
ATS I	23.4	2.42	59	23.3	2.75	39	25.5	4.02	57	24.2	3.27	51	5.240**
" II	23.8	3.60	"	23.6	2.90	"	25.8	3.48	"	25.8	3.45	"	6.317**
" III	12.8	2.37	"	13.0	2.80	"	10.6	3.93	"	12.7	2.37	"	7.510**

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[1] These data for Grades 7-12

* Indicates significance at .05 level

** " " " .01 "

Table 65 (Cont'd)

	Group												
	1			2			3			4			
Variables	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	F
ATS IV	6.7	2.19	59	7.2	2.02	39	5.0	2.21	57	4.8	2.11	51	14.751**
Theoretical	57.4	7.01	"	57.6	7.05	"	50.3	8.38	"	53.6	6.93	"	11.606**
ALIEN I	25.9	5.99	59	27.4	4.61	39	18.8	5.11	57	18.5	6.12	51	34.301**
" II	16.9	5.07	"	14.7	4.14	"	22.0	5.91	"	20.1	5.35	"	18.255**
" III	14.1	3.43	"	15.0	3.65	"	10.6	3.37	"	12.4	5.17	"	11.934**
" IV	5.7	2.42	"	6.1	3.09	"	7.6	3.07	"	8.6	3.07	"	11.097**
" V	13.8	3.34	"	13.9	2.09	"	10.9	3.42	"	10.9	3.65	"	12.616**
" VI	21.0	8.15	"	22.8	9.92	"	17.0	9.41	"	20.4	8.47	"	3.600*
Theoretical	137.2	23.91	"	130.1	17.19	"	177.6	14.82	"	174.6	27.25	"	64.268**

Lorge-Thorndike Nonverbal IQ and the Kuhlmann-Finch IQ, but not for the verbal or Total scales of the Lorge-Thorndike. For the latter two groups, the IQ's parallel the achievement data which is very dependent on verbal skills. What has occurred is illustrated in the following table of correlations among the intelligence and achievement measures.

Table 66

Correlations among Intelligence and Achievement Measures for all Subjects in Group Breakdowns

Intelligence	Achievement					
	CAT					
	Raw		GP		%-ile	
	r	N	r	N	r	N
L-T-NV-IQ	.224	73	.214	73	.054	73
" V-IQ	.338**	"	.313**	"	.395**	"
" T-IQ	.490**	"	.459**	"	.390**	"

	ITED			
	SS		%-ile	
	r	N	r	N
L-T-NV-IQ	-.071	62	.068	62
" V-IQ	.596**	63	.624**	63
" T-IQ	.347**	62	.468**	62
KF-IQ	.159	89	.050	89

*Indicates significance at .05 level.
** " " " .01 "

In essence this table reveals that it is extremely difficult, if not almost impossible to make the distinction desired on the basis of achievement tests which are heavily verbal in content and then to deny a similar patterning on intelligence tests which are also strongly linguistic in nature. The role of verbal influences throughout these data must be kept in mind, but otherwise it is not believed that the intended group divisions are invalidated with respect to the information they were intended to provide.

Examination of Table 65 for the parental measures demonstrates no significant differences among the four groups on Attitudes toward School; however they do vary in a statistically significant manner Attitudes toward the government. Unfortunately if this is a valid finding the reasons for these differences remain somewhat unclear. Group 2 manifests the most positive attitudes toward the government and group 4 the most negative. These groups are similar in terms of the achievement of their children which is high. Considering the other child and parent measures in Tables 64 and 65, no similar patterning of scores comes to the fore.

Significance is obtained across the groups for degree of parental Indian blood and this seems to be a function of Group 1 and 2 parents manifesting lower blood quanta than groups 3 and 4. Apparently the children who show the lowest alienation scores have parents who are less Indian than those who are most alienated. In other words we are seeing the previously noted negative relationship between Indian blood and alienation.

If we examine now the patterning of the children's scores on their attitudes toward the school, Achievement Motivation, Occupational Aspiration, and Alienation subscales, we see many instances of significant variation across the groups. The relationship of these to the maternal data has been shown on some of the previous tables. In addition, the findings on the Alienation subscales might have been expected, in part, from the selection of the child samples on the basis of the Theoretical Alienation scale which contains many of these components of this domain. Furthermore, it must be remembered that many of the group differences on the child variables will reflect the previously reported and discussed correlations among the achievement and alienation measures and the Achmot and ATS scales.

Turning first to the achievement motivation measures, we see significant differences for Achmot II and n-Ach. With regard to the former which appears to assess anxiety about work, we note that group 3 comprised of those with high alienation and low achievement demonstrate by far the most work concern and anxiety. On the n-Ach measure, it is also this group that shows the lowest motivation to achieve. Both of these findings are consonant with those reported earlier.

Rather graphic differences among the groups appear on all of the ATS scales. On ATS I, it is again group 3, those who are most alienated and doing poorly that are least positive toward continuing school. This parallels the finding on ATS III, as this group of students views the school in more negative terms than do those in any of the other groups. ATS scales II, IV and Theoretical show a pattern in which groups 1 and 2 split off from 3 and 4. The latter, whose members are most alienated, manifest considerable dislike of the teachers, and hostility toward the school both on "rational" grounds and in general. Similar data were demonstrated earlier.

Though the foregoing results are similar to those already discussed in the previous analyses, they do not support the hypothesis advanced here. As is highly evident, we were not able to assess the theory advanced relative to attitudes toward education because of lack of variation among the mothers with regard to this area. Their overwhelmingly positive outlook precluded the development of a brief reliable scale. The use of only two items to assess opinions relative to the government personnel undoubtedly contributed to deficiencies with the ATG scale. Some very tenuous support for the hypothesis is gained with the parental scale on Attitudes toward the school. In full frankness, it is not possible to claim confirmation of the theory being assessed here; however, it is felt that the difficulty lies largely in the measurement domain itself. Nevertheless hypothesis C-H A is not supported.

Hypothesis C-H B: Parental alienation should correlate
positively with that of the child.

We have seen that 19 items of the Parental Alienation scale do result in a reliable measure. Table 67, however, shows how the responses to the various items pattern themselves and we can see the presence of considerable inter-subject variation. Examination of these answers reveals a generally optimistic view of the potential in reservation life. Most feel that others are friendly (85.8%) and will help out if there is trouble (80.0%). This matches the respondent's belief that they should help others who are in difficult straits (89.3%). A majority also feel that the future looks pretty good (69.8%).

A number of the views do justice to a Protestant Ethic orientation in that work is highly valued as an avenue to a "good life" (96.6% and 99.5%). Most support an individualistic orientation by affirming that people can control what happens to them (81.0%), hardly evidence of Powerlessness. A stronger case can be made for perceptions of Meaninglessness in that the majority believe that too many things are being said hence one doesn't know what to trust in (86.3%). This is countered

Table 67

Response Frequencies for Parental Alienation Scale Items

Questions	Response	Results Frequency	%
Do you feel that the people on the reservation are friendly?	Yes	176	85.8
	?	16	7.8
	No	13	6.3
Are things around here getting worse all the time?	Yes	91	44.4
	?	15	7.3
	No	99	48.3
If someone else around here is in trouble should you try to help out?	Yes	183	89.3
	?	8	3.9
	No	14	6.8
Does it matter if you do something bad if it leads to a good thing?	Yes	91	44.4
	?	10	4.9
	No	104	50.7
Do you feel others will help you if you have trouble?	Yes	164	80.0
	?	3	1.5
	No	38	18.5
Should you try to do the things that make you happy or do the things others think are right?	Make Happy	181	88.3
	Think right	16	7.8
	?	8	3.9
Is it getting harder and harder to have a happy family?	Yes	109	53.2
	?	1	.5
	No	95	46.3

Table 67 (Con't)

Questions	Response	Results Frequency	%
Do you feel that you can trust the others around here to do that which is right?	Yes	125	61.0
	?	8	3.9
	No	72	35.1
Is it alright to get around the law if you don't really break it?	Yes	86	42.0
	?	3	1.5
	No	116	56.6
Do people around here do what they want to do or do they do what they have to do?	Want to do	117	57.1
	Have to do	7	3.4
	?	81	39.5
Do you think the future looks pretty good or bad for the people around here?	Good	143	69.8
	Bad	10	4.9
	?	52	25.4
When a person around here makes a good life for himself is it because he worked hard or because he just had good luck?	Work hard	198	96.6
	Good luck	6	2.9
	?	1	.5
Do you feel that you have to be a little bit bad to make money these days?	Yes	20	9.8
	?	1	.5
	No	184	89.8
Are the people around here too busy to help each other today?	Yes	112	54.6
	?	3	1.5
	No	90	43.9

Table 67 (Con't)

Questions	Response	Results Frequency	%
Is more expected of a man than he can really do?	Yes	87	42.4
	?	6	2.9
	No	112	54.6
Is a person's future largely a matter of what luck has in store for him?	Yes	82	40.0
	?	1	.5
	No	122	59.5
Is it true that people say so many different things one doesn't know what to believe in?	Yes	177	86.3
	?	2	1.0
	No	26	12.7
Do you feel people can control what happens to them?	Yes	166	81.0
	?	1	.5
	No	38	18.5
If people would work hard would they make a good life for themselves?	Yes	204	99.5
	?	0	0.0
	No	1	.5

Reliability = .701

by internalization of a strict moral code wherein the idea of being "a little bit bad to make money" is overwhelmingly rejected (89.8%). Such a view may not imply conformity, but rather a personal value system since affirmation is given the notion that one ought to do what makes him happy not what others consider right (88.3%). Even though these findings do not imply the presence of an alienated outlook, there is still much evidence that 40 to 50 percent of those interviewed possess, to some degree, feelings of powerlessness, self-estrangement plus a dim view of the future. Objectively viewing the situation on the reservation, a more negative and hopeless perspective would easily be inferred by us who are biased by the relative affluence of our middle class milieu; however, this is not true for the reservation inhabitant who resides in poverty within the conflicted Indian-white setting.

In order to assess the hypothesis now that we have some idea of the extent to which some alienated outlooks are held at Pine Ridge, we may refer to Table 68 in which we gain support for the position taken here.

Table 68

Correlations of Parental Alienation Scale with

Child's Alienation Measures (N = 206)

	Child's Alienation Scales						
	I	II	III	IV	V	VI	Theor.
Parental Alien.	-.062	.174*	-.216**	-.076	-.077	-.063	.159*

*Indicates significance at .05 level.
** " " " .01 "

As parental alienation increases so does rejection by the child of the Protestant Ethic orientation (Alien II). This accompanies perceptions of a relatively meaningless situation by the student. Indications that Meaninglessness is a component of parental alienation was offered in the foregoing discussion of the maternal responses to the alienation items. Lastly, we see that the total Theoretical Alienation score of the child does correlate low but significantly with that of the parent. Despite these findings, Table 64 shows no meaningful variation across the parent-child groups on maternal alienation. That seen for the children on the various scales, it was commented earlier, is probably a function of the manner in which the groups were constructed. We may therefore summarize these results by affirming some support for the hypothesis.

Hypothesis C-H C: Parental Achievement motivation will correlate with that of the child.

The low reliability of the parental Achievement motivation scale precludes the testing of this hypothesis in any valid manner. Table 69, however, presents the responses to the individual achievement motivation items. As might have been expected from what has already been demonstrated, there is everwhelming acceptance of achievement-oriented content. Little more can be said at this point. The hypothesis is untestable with the data gathered.

Table 69

Response Frequencies for

Parental Achievement Motivation Items

Questions	Response	Results Frequency	%
Do you like to do things which other people find are hard?	Yes	160	78.0
	?	8	3.9
	No	37	18.0
Is it important to finish a job once you start it?	Yes	204	99.5
	?	0	0.0
	No	1	.5
When you went to school did you enjoy it? (Also on Attitude Toward Education Scale)	Yes	197	96.1
	?	0	0.0
	No	8	3.9
Usually if you have to do something, it can be done as well tomorrow as today.	Yes	124	60.5
	?	3	2.9
	No	78	38.0
Do you like to read?	Yes	183	89.3
	?	2	1.0
	No	20	9.8
If a job is hard and not very interesting, is it alright to try to get out of doing it?	Yes	44	21.5
	?	2	1.0
	No	159	77.6

Reliability = .373

Hypothesis C-H D: As home and parental socioeconomic status decline, the child's feelings of alienation should increase, achievement motivation will reduce, and negative attitudes toward the school will also become more prominent.

Table 70 contains the data relevant to the evaluation of this hypothesis. The findings with the child's alienation and ATS scales support the hypothesis, but that with Achmot III is not as theorized. We see that as home SES declines the child's rejection of a Protestant Ethic outlook increases (Alien II) and this parallels the development of perceptions of Meaninglessness (Alien III) and Normlessness (Alien VI). Correspondingly, the child tends to see the school as useless (ATS III). In contrast, a borderline correlation obtains between SES and Achmot III which implies that those from low SES homes perceive themselves as positive toward reading and willing to put forth achievement effort. We saw similar trends earlier and commented that children in such circumstances may need to view themselves in this manner. In addition their lower achievement and IQ could mean they actually do put forth greater effort and gain less in return. In sum, we have gained some evidence supporting the hypothesis that low socioeconomic status may adversely affect the outlook of an Indian child toward the world and the school.

Table 70

Correlations of Parental-Home Socioeconomic Status with Child's Attitude-Orientation Measures (N=205)

	r
ALIEN I	-044
" II	147*
" III	-322**
" IV	-009
" V	-124
" VI	-192**
Theoretical	038
ACHMOT I	-019
" II	-082
" III	-140*
" IV	-016
Theoretical	-084
ATS I	053
" II	096
" III	-147*
" IV	-042
Theoretical	004

*Indicates Significance at .05 level
** " " " .01 "

Hypothesis C-H E: Socioeconomic status will be an inverse function of degree of Indianness.

The data are quite clear and impressive in support of this hypothesis. Even though the range is not great on the SES variable, parental degree of Indian "blood" correlates .366 with SES (N = 198) while that of the child correlates .380. Parent and child blood indices correlate .832 (N = 199). All of these coefficients exceed the .01 level of significance. Remembering that a high SES score designates low status, we can see that this variable is indeed negatively related to Indianness. In other words those who are in the poorest straits economically are the most Indian.

Hypothesis C-H F: Parental Indianness should be associated with negativity of parental attitudes toward education, local schools, the government, high alienation, and low achievement motivation.

Because of the low reliability of the ATE and Achmot scales for the parents, these facets of the hypothesis are not assessed. Table 71 reveals no significant relationships between degree of parental Indian "blood" and the ATS, ATG and Alienation measures for the mothers.

Table 71

Correlations of Parental Indian "Blood" with other Parental Measures

Variables	"Blood"	
	r	N
ATS	-.112	205
ATG	.053	199
Alien	.111	"

Due to the tie between Indianness and socioeconomic status, it would seem reasonable to explore the relationships between SES and these same measures with a view toward determining the distinctive roles SES and Indianness play in this total context. Table 71 shows that SES is actually negatively tied to school attitudes. Apparently questions about the school and its work are more likely to arise if one comes from a home which is economically more viable. Those that are at the bottom of the SES ladder may also be most loathe to challenge the "rightness" of the schools and/or hold strongly to the view that the only chance their children have is via the schools and education, an outlook which is probably fairly accurate.

Table 72

Correlations of SES with Other Parent Measures

Variables	SES r	SES N
ATS	-.187**	202
ATG	-.021	205
Alien	.055	"

**Indicates significance at .01 level

The question which has been present throughout this research involves the confounding of socioeconomic status and Indianness. An entre into the statistical separation of these variables may now be available. To illustrate, we should be able to remove the involvement of SES from correlations of Indian "blood" with the other parent variables, and in turn reverse this procedure to see what the role of Indianness is in the association of the parental measures with SES.

Examining first the partial correlation of ATS with Indianness (presently null) when SES is removed from both ATS and the blood index, we obtain a partial r of .049 indicating no change in the "blood"--ATS correlation. Apparently the significant relationship between SES and ATS does not meaningfully affect the previous association. Part and partial-correlations are both being employed here since we sometimes desire only to remove either blood or SES from each other in the relationship of any one of these variables with another measure.

Utilizing the part-correlation approach and removing blood from SES only in the SES-ATS relationship, we obtain a part-r of .044 which is not statistically real. Apparently when blood was removed from SES, the significant correlation between SES and ATS disappears. When this finding is compared with that above, it suggests that Indianness exerts a more powerful effect than does SES within this context. It is accepted that this approach is controversial; however, such findings may be heuristically useful. We will examine these possibilities again at a later point in this analysis.

To summarize our results relative to the hypothesis, we cannot say that Indianness is associated with negative attitudes toward the school or with alienation. There is some slight suggestion that Indianness may be more important than SES in such patterns. This could be a function of its actually greater significance or the possibility that the latter variable is quite reduced in range on the reservation and especially within the samples studied.

Hypothesis C-H G: Attitudes of Indian parents toward education and the schools will be positive.

In pursuing answers to some of the earlier hypotheses in this chapter, it was necessary to examine the pattern of individual responses to the ATE and ATS scales. Tables 59 and 60 contain these data, and it is immediately evident that the mothers interviewed are overwhelmingly positive toward education in general and the local schools in particular. Such approval for the former is manifested by agreement on the importance of education by over 95 percent of the respondents on each of the ATE items. A similar congruence of outlook occurs for the ATS items but in the 70 to 80 percent range. Actual negativism is less than 15 percent relative to the local school situation. Though there may be slightly more qualification addressed to the immediate educational setting, there can be no doubt of the positiveness of the parents toward the schools and education. The hypothesis gains strong support.

Hypothesis C-H H: Degree of parental Indianness will relate to the presence of traditional child-rearing practices.

1. Parent and child views of child-rearing practices should vary together.

Again it will not be possible to assess these positions because of the extremely low reliability of the attempted child-rearing scale. Table 73 offers the response pattern to the four items employed in this area. It is not clear that these parents, taken as a group, appear different from middle

Table 73

Response Frequencies for Parental Child-Rearing Attitude Items

Questions	Response	Results Frequency	%
Do you think children should			
Take care of their own things?	Yes	196	95.6
	?	3	1.5
	No	6	2.9
Ask their parents for permission before they go some place or do something for the first time?	Yes	204	99.5
	?	1	.5
	No	0	0.0
Help their parents around the house or when their parents are working hard?	Yes	204	99.5
	?	1	.5
	No	0	0.0
Do you think parents should hit or spank their children when the children make the parents unhappy?	Yes	117	57.1
	?	20	9.8
	No	68	33.2

Reliability = .257

class white parents in their expectations of children's responsibilities. Regarding physical punishment, the majority of mothers apparently consider this quite acceptable. The permissive-indulgent image of the Indian parent thus does not gain support from these results.

If we survey the comments of the mothers on child-rearing, the same non-permissive pattern is repeated over and over again. There is continual affirmation of who should be "boss in the home" with rejection of the "buddy" notion of parenthood. Punishment is overwhelmingly spoken of in terms of restrictive practices, denial of privileges and not being permitted to do that which gives pleasure to the child. The idea of spanking, especially the younger children, seems to gain a fair amount of approval, but there is a definite aversion to other kinds of hitting or physically beating children. Objections are made to lying, being lazy, fighting, staying out without permission, "chewing and popping gum" and a host of other activities that make parents "mad". If these comments were unidentified as to origin, they would seem to reflect the spectrum of white, middle-class thought on the raising and control of children.

The Indian mothers are most concerned that their offspring know right from wrong, that parents be able to communicate with the children, provide adequate food and clothing, and keep them clean and well-behaved. Terms like "understanding, patience, guidance, love, care, proper discipline, respect, and responsibility" are offered as the framework for parent-child relations. Any conservative child psychologist would find little or nothing to argue about with these mothers. One could infer that Dr. Spock's wiritngs constitute the child care bible in the Indian home. It is, of course, possible that a marked discrepancy exists between verbalization and practice; however, where inconsistency, neglect, rejection and deprivation occur, such might tie in to the high incidence of severe poverty, broken homes, and the kind of anomic deregulation and alienation found on the reservation.

If we examine child-rearing experiences from the vantage point of the child as shown in the group breakdown in Table 74, we see significance on Chrear scales III and VI. For the former, group 1, the children who are low in both alienation and achievement, perceive the least child manipulation of the parent of all of the groups. It was conjectured earlier that admission of such manipulation seems to be a function of possible hostility toward the mother by the child. It is possible that group 1 children come from homes in which there is little or no pressure to achieve, hence their low performance. The relatively low

Table 74

Comparison of Parent-Child Groups on Child-Rearing Experiences as Reported by the Child

Variables	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	F
CHREAR I	40.7	7.06	59	39.2	6.39	39	39.0	9.22	57	40.3	8.09	51	<1
II	13.7	4.72	"	12.1	3.02	"	13.2	5.13	"	13.1	4.39	"	<1
III	7.4	1.65	"	6.5	1.63	"	6.5	1.86	"	6.6	1.72	"	3.459*
IV	7.0	2.35	"	6.1	1.60	"	7.4	3.01	"	6.8	2.36	"	2.305
V	10.5	4.31	"	9.9	4.57	"	12.4	5.32	"	10.9	5.20	"	2.403
VI	18.3	5.22	"	17.2	5.40	"	20.7	7.12	"	19.9	7.74	"	2.816*

* Indicates significance at .05 level

score for this group on Chrear VI tends to affirm this speculation in that these children also see a fairly high level of mutual love and understanding between themselves and their mothers.

Looking in more detail at this last scale, those with low alienation and high achievement claim the most positive affectional home setting, while the children with high alienation and low achievement picture relationships with their mothers as possessing the least love, kindness and mutuality. Similar findings were discussed a few chapters back.

Though it is not possible to relate parental and child views of child-rearing and test the hypothesis advanced above, we do see that the Indian mothers, in general, manifest attitudes in this area that seem remarkably like those ascribed to white middle-class mothers. Undoubtedly the practice of these is tempered by the unhappy conditions of reservation life.

Summary of Child-Home Relationships.

Attempts to relate the child's attitudes and outlooks to those expressed by the parents often foundered on the vagaries of scale construction. The dominant tendency of the mothers interviewed to agree on many issues, and to do so in a manner of which the white, middle-class would be proud precluded the development of reliable measuring instruments to assess attitudes toward education, achievement motivation and child-rearing practices. Examination of comments recorded by the interviewers, the response patterns in the foregoing areas and the results with those scales that appear reliable permit the following observations.

1. Only the barest support is obtained for the position that negative attitudes on the part of the parents toward education, the school and the government will relate to similar perspectives by the children.
2. Parental alienation does correlate low but significantly with that of the children, even though the dominant views of the world and reservation life held by the parents cannot be regarded as alienated to any great extent.
3. Indianness is associated with low socioeconomic status, but not with attitudes toward the school, government or alienation.
4. The lower the socioeconomic status the more positive are maternal attitudes toward the school, but this relationship disappears when the "Indian" component in SES is removed. Some tenuous suggestion is present that Indianness takes precedence over SES in the relationship of these two variables to the attitude measures utilized here.

5. Indian parents are strongly positive toward education in general, the local schools in specific and to the components of a Protestant Ethic--achievement motivated orientation toward life.
6. In terms of the outlooks of the Indian mothers relative to child-rearing, no substantial evidence could be adduced of a permissive-indulgent pattern of child-rearing practices prevailing on the reservation. In fact, the prevalent views appear quite conservative and middle-class in nature.
7. Apparent discrepancies between the values espoused by the mothers and the outlook and performance of their children in school must be considered in the context of the anomic state of reservation life with its Indian-poverty circumstances. These must place great strain on family life, as has been shown by Maynard and Twiss (1969) and thus result in value and behavior inconsistencies which circularly contribute to the prevailing level of local anomie and alienation.

Chapter XI

Results and Discussion VIII:

Home-School Relationships

We will now attempt to understand possible relationships between the measures of mother perspective and home life and the performance of the Indian child in school. Again we encounter the impossibility of assessing certain of the hypotheses advanced because of the low reliability of a number of the parental measures. Concurrently when we report our findings in the simple one variable to one variable relationship, we tend to lose sight of the great complexity of the phenomena under study and the domains across which measurement is attempted. Despite the fact reliable instruments may be constructed, we need to recognize that the areas treated are still approximated in a rather gross manner. There are many times this writer confronts the likelihood that statistically significant findings, though usually low in terms of the strength of relationships, must be regarded as more the exception than the rule; however, such do point the way to fruitful possibilities for further work.

Hypothesis H-S* A: As parental attitudes become more negative toward education, local schools, and the government, the measured achievement and intelligence of the children should decline.

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*H-S stands for Home-School.

The problem of complexity is immediately evident here. On the basis of what we have already shown and discussed, the interplay of SES and "blood" with the attitudes of both parents and children and the IQ and performance of the students comes to the fore. The relationships postulated are circular and due to the number of factors involved, meaningful associations could be masked which otherwise might be present were it possible to partial out various of the probable confounding influences. The plausibility of such a rather general explanation in the present instance is left to the reader.

If we examine Tables 75 and 76 which respectively deal with parental views of the local schools and government, we observe a pattern of nonsignificant correlations and little can be adduced from these. The lack of reliability of the attempted attitude toward education scale precluded any assessment with these items. Only one borderline significant coefficient was obtained and this implies that as the parents become more negative toward the school, the child's verbal IQ increases. In Table 22, we saw that IQ was a definite negative function of Indianness. Despite the high correlation between degree of Indian "blood" of the mother and child, no similar pattern holds for the blood quanta of the mother with the child variables (Table 79). Some suggestion of a role for SES in these relationships is suggested in Table 78, but this is tenuous. Indeed the direction of the

Table 75

Correlations between Parental Attitudes Toward the School and Child's Intelligence and Achievement

Variable	ATS	
	r	N
Intelligence		
L-T-NV-IQ	-.089	135
" V-IQ	.172*	136
" T-IQ	.053	135
KF-IQ	-.020	97
Achievement		
CAT-Raw	.019	73
" -GP	.013	"
"%-ile	-.004	"
ITED-SS	.124	125
" %-ile	.141	"

* Indicates significance at .05 level

Table 76

Correlations between Parental Attitude Toward the Government and Child's Intelligence and Achievement

Variable	ATG r	ATG N
Intelligence		
L-T-NV-IQ	-.038	135
" V-IQ	-.005	136
" T-IQ	.005	135
KF-IQ	.081	97
Achievement		
CAT-Raw	.081	73
" -GP	.068	"
"%-ile	-.119	"
ITED-SS	.037	"
" %-ile	-.001	"

above significant correlation was not expected but one can still ask if some of these associations may not become operative when the family attains a certain level of economic security with its probable attendant cultural sophistication. Again the writer is reaching beyond the findings for a possible explanation which he feels may be worthy of additional thought and investigation. In any event, no support is gained for the hypothesis.

Hypothesis H-S B: As parental alienation increases, the achievement and alienation of the children should reduce.

Table 77 provides no evidence in favor of this hypothesis. All correlations fail to reach statistical significance. The tie between the child measures of alienation, IQ and achievement shown in Table 19 are not reproduced here even though some meaningful affiliation was revealed in Table 68 between the parental and child measures of alienation.

Hypothesis H-S C: As parental achievement motivation increases, the achievement and intelligence of their children will correspondingly rise.

Because of the unreliability of the parental achievement motivation measures, it was not possible to assess this hypothesis.

Table 77

Correlations between Parental Alienation and Child's Intelligence and Achievement

Variable	Alien	
	r	N
Intelligence		
L-T-NV-IQ	-.040	135
" V-IQ	-.132	136
" T-IQ	-.124	135
KF-IQ	.008	97
Achievement		
CAT-Raw	-.119	73
" -GP	-.095	"
"%-ile	-.031	"
ITED-SS	-.056	125
" %-ile	-.038	"

Hypothesis H-S D: Home socioeconomic status will be positively associated with school achievement and child intelligence.

Table 78 contains data relevant to this hypothesis and only one coefficient attains statistical significance and this is in the direction predicted. As SES declines so does the child's total IQ. The correlation is low and of borderline significance, but nevertheless suggestive. So at best, we may infer very tentative support for the hypothesis.

Hypothesis H-S E: Degree of parental Indianness will be negatively affiliated with measured school achievement and child intelligence.

Though meaningful relationships were found between these classes of variables for the children (Table 22), Table 79 fails to confirm such associations when the parental index is used, thus no support is gained for the hypothesis.

Hypothesis H-S F: Continuation in school will vary negatively as a function of parental Indianness and positively with home socioeconomic status.

Even though this hypothesis does not make reference to the possible involvement of parental outlooks (some of those "many unstated relationships some of which will be discussed in the following pages" p. 86), we will include these data. Table 80

Table 78

Correlations Between Home Socioeconomic Status and Child's Intelligence and Achievement

Variable	SES	
Intelligence	r	N
L-T-NV-IQ	-.158	134
" V-IQ	-.083	135
" T-IQ	-.180*	134
KF-IQ	.108	97
Achievement		
CAT - Raw	-.171	72
" - GP	-.173	"
" -%-ile	-.076	"
ITED-SS	-.065	125
-%-ile	-.099	"

*indicates significance at .05 level.

Table 79

Correlations between Degree of Parental Indian "Blood" and Child's Intelligence and Achievement

Variables	Parental "Blood"	
Intelligence	r	N
L-T-NV-IQ	.014	132
" V-IQ	-.066	133
" T-IQ	-.124	132
KF-IQ	.148	92
Achievement		
CAT - Raw	-.121	72
" - GP	-.132	"
" -%-ile	-.064	"
ITED - SS	-.024	118
-%-ile	-.081	"

Table 80

Comparison of Continuers and Non-Continuers in Parent-Child Sample on Parent Variables

Variable	Continuers (N = 178)		Non-Continuers (N = 28)		
	Mn	SD	Mn	SD	F
ATS	2.0	2.78	2.0	2.73	<1
ATG	2.6	3.19	2.6	3.30	<1
ALIEN	6.5	3.61	8.2	3.21	5.851*
SES[1]	43.0	9.83	47.4	8.25	5.046*
"BLOOD"	6.0	2.10	6.8	1.60	4.318*

[1] N for Continuers on SES = 177

[2] N for Continuers on "Blood" = 172, for Non-Continuers = 27

*Indicates Significance at .05 level

compares the continuer and non-continuer groups on all the maternal variables. We see that significant differences were obtained for three of the measures. The mothers of the non-continuers appear more alienated, of lower socioeconomic status, and to be more Indian than the mothers of continuing students. The triad of SES, Indianness, and Alienation again comes to the fore to support this hypothesis.

Summary of Home-School Findings

The results obtained on the relationship of the maternal perspectives and the home to child intelligence and achievement are disappointing. This is largely due to the unreliability of a number of the measures an attempt was made to develop. In addition the complexity of the home-child-school transaction become abundantly evident. This may have markedly reduced the probability of obtaining clear and significant bivariate relationships. Clearly we have a problem to which multivariate procedures should be applied; however, where the parental data are concerned, in a number of instances, more valid measures will have to be constructed. In the mind of the writer, the two which are of reasonably good quality are first, the traditional measure of Indianness, "blood", with its shortcomings, but also with its rather considerable sociological significance. Second, the index of socioeconomic status used here would seem to be far more exacting than that employed in the majority of research where reference is made to this realm. Indianness and SES are related and apparently operate jointly to produce many of the effects noted throughout this study. In the next chapter we will examine this problem further. On the basis of the above findings, we can say:

1. Parental attitudes as measured are independent of child intelligence and school achievement test data.
2. Very tenuous support is observed for the position that socioeconomic status is positively related to child intelligence.
3. Though parental Indianness is not affiliated with child intelligence and school achievement, school continuation does tie to lower quanta of maternal Indian "blood", higher socioeconomic status, and less alienation on the part of the mothers in relation to these characteristics of the homes and mothers of non-continuers.

Chapter XII

Results and Discussion IX: The Confounding and Separation of Socioeconomic Class and Indianness

In the last chapter, we saw that degree of Indian blood is negatively affiliated with socioeconomic class membership. among Indians. This means that both of these factors are probably operative in many of the relationships noted earlier. The congruence of minority group status and low SES is rather general for the United States; however, only recently has it been acknowledged that poverty circumstances possess their own cultural concomitants. In addition, each minority in such a setting modifies its traditional practices to the conditions in which it finds itself. Though it is somewhat unrealistic to attempt a separation of these influences, it is increasingly becoming of practical importance to gain some insight into the role education bears for the individual as a function of either his class or group culture.

In the past and to a considerable extent today, educators have tended to ignore both of these categories of influence. With the development of concern about the "disadvantaged", economic factors were conceptualized in terms of "cultural deprivation". The inadequacy of such formulations is becoming more and more evident to school authorities. Recognition of the special problems encountered in teaching the economically deprived has entailed awareness of the distinctive problems of different peoples in these circumstances. Though Mexicans, Hispanos, Blacks and Indians share much in common, the children of these groups demonstrate considerable likelihood of bringing into the classroom their own idiosyncratic cultural, linguistic, and cognitive-stylistic patterns that merit special consideration. Among recent developments has been an upsurge in pride of group identification on the part of minority peoples. This has called attention to a serious deficiency of American education. Not only has it been directed toward our middle classes, but it has almost totally been focused on the cultural accomplishments of Anglo-Americans and their Christian forebears from northern and western Europe. To rectify many of these shortcomings, a great outpouring of new textbooks on the history and culture of minority peoples and their role in American life has occurred. Unfortunately the profusion of such works is not always accompanied by the kind of precision and accuracy that scholars desire, but they probably contain no more errors and biases than those previously employed which eulogized the activities of majority-white peoples.

At some near future time, it will be necessary to attend proportionately to the educational difficulties of minority children that are a function of either their class situation or group identification. The transaction of these referents will always be a significant problem in itself. Even though action programs will continue to proliferate with little research concern addressed to either the economic or the group aspects of such ventures, implicit in these efforts are assumptions about what will work or not work to develop an educated populace. Currently, in many settings, especially on a number of reservations, stress is being placed on pride in self and group identity. It is assumed that growth in positive self-concepts on the part of minority children must eventuate in greater educational attainments. Constructive personal outlooks are supposed to endow the child with a sense of worth and dignity that will make him less vulnerable to the effects of failure in many regular curriculum areas. The content of the latter and the methods by which such is taught still tends largely to be appropriate to the middle classes. In some situations, experimental and innovative procedures of the operant learning type are being introduced to counter the effects of lower class influences that appear antithetic to learning in the classroom. Unfortunately we find the results of these programs confounded with the effects of the often charismatic kinds of teachers selected and interested in trying out these methods. Nevertheless one of the first questions that should be asked with regard to any group is whether prime emphasis should be on class or group factors when educational innovation is undertaken. This query, of course, rapidly reduces to considerations of proportionate effects relative to these concerns.

We may be in a position to bring some evidence to bear on these questions, but, as will be apparent, this requires making a number of assumptions; however, some testing of these is possible, and the reader will have to decide for himself if this approach is valid.

Data on socioeconomic status were only obtained for a somewhat select sample of the Indian children. If we are to generalize these findings to all of the Indian Ss, we need to know how representative this sample is. In order to determine such representativeness, the 206 children in the Parent-Child sample were compared on all variables with the total Indian sample when the former Ss were removed. These data are presented for all grades in Table 81.

Of the 39 comparisons reported, three attain statistical significance at the .05 level and none reach the .01 level. In terms of absolute magnitude no difference is very large. One of these is on the n-Ach measure which has been shown to be unreliable and probably invalid for use with Indians. The

Table 81

Comparison of Parent-Child and Remaining Indian Sample Groups on Child Variables over all Grades

	Parent-Child Sample			Remaining Sample			
Variable	Mn	SD	N	Mn	SD	N	F
Sex	.50	.50	206	.51	.50	547	<1
Blood	6.0	2.09	"	6.0	2.25	542	<1
Intelligence							
L-T-NV-IQ	100.5	8.02	135	98.8	14.13	263	2.387[1]
" V-IQ	94.7	7.06	136	94.5	11.70	268	<1[1]
" T-IQ	97.4	6.03	135	96.8	12.52	261	<1[1]
KF-IQ	97.1	5.03	97	95.4	12.07	236	3.269[1]
Achievement							
CAT-RAW	217.1	42.15	73	217.1	47.30	199	<1
" -GP	7.5	.99	"	7.6	1.18	259	<1
" -%-ILE	44.3	22.84	"	46.7	24.62	"	<1
ITED-SS	10.7	3.75	125	10.7	3.98	226	<1
" -%-ILE	35.7	17.30	"	35.9	19.15	"	<1
ACHMOT I	5.5	3.59	206	5.4	3.49	547	<1
" II	7.2	2.99	"	7.5	3.21	"	<1
" III	14.9	3.67	"	14.2	2.79	"	3.027
" IV	4.0	2.65	"	3.7	2.40	"	2.185
Theoretical	48.6	12.88	"	49.8	11.41	"	1.383
TAT n-ACH	7.2	4.06	197	6.5	3.99	514	4.313*
Occupational							
EOG	2.7	2.27	110	2.4	2.29	287	1.396
WORS	2.5	1.26	"	2.5	1.26	289	<1
HN-I	3.3	1.71	"	3.2	1.69	"	<1
HN-II	75.1	8.32	"	75.0	8.51	"	<1

*Indicates Significance at .05 level

[1] Because of the unequal variances and N's, the Welch Test was used here. All t's were non-significant and were converted to F's

Table 81 (con't)

	Parent-Child Sample			Remaining Sample			
Variable	Mn	SD	N	Mn	SD	N	F
ATS I	24.1	3.32	206	24.5	3.37	547	2.174
" II	24.8	3.56	"	24.9	3.71	"	<1
" III	12.2	3.12	"	11.9	3.15	"	1.383
" IV	5.8	2.37	"	5.9	2.43	"	<1
Theoretical	54.5	8.02	"	53.5	8.27	"	2.291
CHREAR I	39.8	7.89	206	39.4	8.19	547	<1
" II	13.1	4.52	"	13.2	4.42	"	<1
" III	6.8	1.76	"	6.8	1.87	"	<1
" IV	6.9	2.48	"	7.0	2.60	"	<1
" V	11.0	4.97	"	10.7	5.01	"	<1
" VI	19.2	6.63	"	19.6	6.90	"	<1
ALIEN I	22.4	6.82	206	21.7	7.21	547	1.539
" II	18.7	5.90	"	19.7	5.93	"	4.276*
" III	12.9	4.29	"	12.2	4.56	"	3.854*
" IV	7.0	3.13	"	7.3	3.11	"	1.392
" V	12.3	3.67	"	11.9	3.88	"	1.732
" VI	20.1	9.17	"	20.1	9.32	"	<1
Theoretical	156.3	30.12	"	158.6	30.85	483	<1

remaining two occur on Alien II and III suggesting that the Parent-Child sample scores higher on a conformist, Protestant Ethic Orientation and lower on Meaninglessness. Considering the scattered nature of these findings, it is possible that they could be a chance occurrence, but if real, they do not imply that the Ss in the Parent-Child sample are to any extent unrepresentative of the total group.

A second approach to assessing the representativeness of the child subsample involved correlations among all of the child measures. Four hundred and four of these were computed and the absolute difference calculated between these and their remaining counterparts. 320 differed by less than .099 and 17 varied by more than .20. The mean difference was .077. There were very few reversals of sign of the coefficients. Subjectively one gains the impression of great agreement across the samples in terms of low differences when the magnitude of the correlations tended to be high. The very high proportion of null coefficients does tend to bias this approach and possibly exaggerate the degree of correspondence between the samples. This leads to the inference of greater randomness for the Parent-Child sample than is probably true; however, there is still no evidence indicating any true unrepresentativeness for these selected Ss. The marked reduction of variance in the intelligence measures constitutes an exception, though in mean values no biasing effect is apparent.

The writer would again like to emphasize that this generalization procedure is a very hazardous one. Though some possibly very tenuous assumptions are offered, they do not seem to be wholly devoid of validity. To continue with this process, it is therefore not unreasonable to regard as fairly accurate the correlations between blood and SES, and SES and the child variables from the Parent-Child sample. The blood-child variable correlations from the total sample would also seem appropriate since they must be more representative of the actual situation. Table 82 summarizes all of these relationships. Most of the correlations were offered in previous tables. Since this is a largely psychometric exercise with hoped for heuristic value, no analysis will be carried out where both SES and degree of Indian blood correlate null with a third measure. If these r's are both statistically significant, the partial correlation approach will be used; if only one is meaningful, part-correlations are employed depending on the pattern of the significant r's (McNemar, 1962).

Table 83 contains the part-and partial r's, and we can see that little change occurred between these and the immediately preceding data. In a number of instances correlations that were significant no longer reach these levels; however, many were of borderline magnitude initially. When the SES-IQ relationships are corrected for blood, the significant tie with the Lorge-Thorndike Total IQ disappears, while that with

Table 82

Correlations of SES and Degree of Indian "Blood" with all Child Variables[1]

	SES		BLOOD				SES		BLOOD	
	r	n	r	n			r	n	r	n
Blood	380[2]				ATS	I	053	205	-016	746
LT-NVIQ	-158	134	-168**	396	"	II	096	"	-040	"
VIQ	-083	135	-201**	402	"	III	-147*	"	-114**	"
TIQ	-180*	134	-209**	394	"	IV	-042	"	019	"
KFIQ	108	97	-198**	333	"	TH	004	"	-004	"
CAT-RAW	-171	72	-177**	279	CHREAR	I	-062	"	043	"
GP	-173	"	-152*	332	"	II	050	"	056	"
%-ILE	-076	"	-128*	"	"	III	015	"	050	"
ITED-SS	-144	125	-222**	348	"	IV	-038	"	014	"
%-ILE	-099	"	-189**	"	"	V	002	"	024	"
					"	VI	-067	"	-062	"

[1] Sample Sizes Available in Previous Tables

*Indicates Significance at .05 level

** " " " .01 "

[2] Decimal points omitted.

Table 82 (con't)

	SES		BLOOD	
	r	n	r	n
ACHMOT I	-019	205	-030	746
" II	-082	"	-074*	"
" III	-140	"	062	"
" IV	-016	"	049	"
" THEOR	-084	"	-027	"
n-ACH	-034	196	-002	707
EOG	097	110	050	393
WORS	122		062	395
HN-I	010	"	-034	"
HN-II	-103	"	-065	"

	SES		BLOOD	
	r	n	r	n
ALIEN I	-044	205	-074*	746
" II	147*	"	117**	"
" III	-322**	"	-256**	"
" IV	-009	"	032	"
" V	-124	"	-136**	"
" VI	-192**	"	-178**	"
" THEOR	038	"	194**	683

Table 83

Selected Correlations "Corrected" for SES and "Blood"

Variable	Correlations with SES "Corrected" for "Blood"	Correlations with "Blood" "Corrected" for SES
Intelligence		
L-T-NV-IQ	-.103	-.109*[1]
" V-IQ	-.008	-.170**[1]
" T-IQ	-.112	-.156**
KF-IQ	.202*	-.158**[1]
Achievement		
CAT-RAW	-.114	-.114[1]
" -GP	-.126	-.087[1]
" -%-ILE	-.029	-.099[1]
ITED-SS	-.066	-.099[1]
" -%-ILE	-.030	-.152[1]
ACHMOT II	-.059	-.043[1]
ATS III	-.113	-.063
ALIEN I	-.017	-.057[1]
" II	-.112	-.189**
" III	-.252**	-.148**
" V	-.078	-.090*[1]
" VI	-.136	-.116**
" THEOR.	-.040	.180**[1]

[1] Part-correlations Computed: All Other r's, Partial

* Indicates Significance at .05 level
** " " " .01 "

the Kuhlmann-Finch now becomes statistically meaningful. Unfortunately the latter makes no sense. In effect it says that IQ goes up as SES reduces. No explanation other than the possibility of chance is advanced.

When the IQ - Blood r's are corrected for SES, though all drop in strength, they still remain significant. Again as a suggestive exercise, calculating the mean absolute degree of change from the original coefficients shows an interesting tendency. When blood is removed from the SES associations, the average change in a coefficient is .098. If SES is removed from the blood r's, the change is less than one-half of this, .046. The reason for this is obvious, higher initial correlations between Blood and IQ, nevertheless both of these observations support the inference relative to intelligence that the psychosocial concomitants of being Indian may be of greater import than the poverty circumstances of reservation life. One interpretation could be based on the possibility that the standardization procedures employed in validating tests such as utilized here increasingly sample lower SES groups, but do not examine non-SES, ethnic components of such examinations. Lower SES peoples proximal to the mainstream of American society could therefore be expected to do better than persons in similar economic straits who are culturally deviant on other grounds.

Considering the achievement relationships, there is essentially no change when SES has blood partialled out. These coefficients were nonsignificant initially. In contrast, all of those with blood were "real", but reduce to essentially zero when SES is removed. The significance of the latter, which do not vary much in magnitude from the former, seems to be a function of the much larger sample sizes available for the correlations with blood. Speculating beyond the data, the writer gains the impression that blood is of slightly less relevance in these relationships than SES may be. It is recognized that this is a most tenuous inference. Both it and that above with regard to intelligence plus the potential discrepancy between achievement and intelligence is worthy of additional investigation.

Turning to changes in the attitude-orientation measures, we see the foregoing general tendency for the magnitude of the correlations to decline when either blood or SES is removed. More of significance disappear when blood is partialled out; however, Achmot II and ATS III which were meaningful for both variables now no longer attain significance. Examining the size of the original correlations plus the extent of change, this writer feels that SES and blood are probably equivalent in their influence.

Summary of Findings of the role of Socioeconomic Status and Blood.

In the present work Indianness and socioeconomic status are of often confounded. Their effects are obviously additive such that being Indian and in poorer economic circumstances go together.

Combined effects are most evident in the domains of intelligence, achievement and alienation. Making certain assumptions which appear to possess some validity, an effort has been made to show the relative contribution of SES and Indianness to ability and attitudinal factors of significance in school. The results are essentially inconclusive with some suggestion that being Indian may affect measures of IQ more than low SES, while the latter may be of greater importance in the achievement realm. Even these inferences may go beyond the data. One factor that cannot be overlooked is the probable severe restriction imposed on the SES data. Undoubtedly we have great positive skewness, a bunching of the group toward the low end of the economic scale, and this must reduce possible SES effects. If anything can be gleaned from these observations, it may be that educational innovations will have to consider equally the economic and ethnic-cultural state of the Oglala Sioux. Were the class status and job opportunities of these people to improve, the role of Indian cultural influences would also change. The likelihood of graphic change in ethnic status is probably even poorer than the probability of great economic variation, thus posing a continuing extremely serious situation for the schools, educators, Indian children and their parents. At this juncture, it can be validly said that the transaction of poverty and Indianness constitutes the essence of the educational problem, not either in isolation, but both together.

Chapter XIII

Recommendations and Conclusions

The Need for Perspective

It has been said that there is nothing more practical than a good theory. Throughout these pages an effort has been made to maintain what might be termed a transactional approach in which the behavior of the child in school is regarded a function of the many contexts in which he exists. Though emphasis has been on the psychological field, the educational performance and outlook of students was assumed to be inseparable from the past history of the child in the home which in turn needs to be conceptualized as a home in a certain kind of political-economic-social setting. The central components of this last reference center about Indian-white cultural value conflicts and those resulting from the clash of middle and lower class perspectives. That a unique transaction exists across these economic and cultural schema is taken for granted and such is implied in the term, Indian-poverty, which has often been used to describe the circumstances and conditions of life on the reservation. We have also seen that the effects of being Indian and poor combine supportively in a manner detrimental to the acquisition of education as such is now undertaken.

Socioculturally the situation is one containing many conflicting and conflicted value premises that can be described as creating an anomic psychosocial milieu. This relatively normless and deregulated system leads to corresponding perceptions of meaninglessness on the part of Indian children and adults. Associated with this outlook are feelings of powerlessness and the other components of an alienated perspective. Psychosocially, such a state of mind works against those forces which could improve the lot of the Indian in American society. Time perspective is shortened, withdrawal and escapist mechanisms dominate, hence apathy, isolation and a high incidence of drinking behavior. The objective economic, social and political conditions of life tend more to condition "adjustive" modes of response than "coping" actions designed to change the situation.

As simple and traditional as it is to "place the blame where it belongs", sobering second thoughts necessitate our viewing these difficulties in a field or systems sense. The problems observed are not due to specific persons, agencies or practices per se, they are referable to the structural elements of the system in their ordered pattern of established relations. Thus we have action within contexts which themselves exist within other broader environments. The child and teacher relate to each other within a classroom that includes other children. The classroom is part of a school that bears not only a physical but cultural relation to the immediate Indian community and finally to the larger reservation, state and national contexts that find their expression and influence within the classroom, curriculum and pattern of child-parent-teacher associations.

This approach provides a useful entre to our discussion and recommendations. Utilizing the concept of alienation, suggestions are made with a view toward countering this process. Though recognizing full well the complexity of these issues and relations, a certain arbitrariness in selection and order is necessarily present. We will first focus on the child and the learning tasks he encounters and this will reach into the curricular domain. From here we proceed on the assumption that the pupil and the material with which he deals exist within the social context of the classroom, hence the highly significant role of the teacher and peers. Rapidly this brings into focus the extra-classroom setting and its import for learning. Parental relations with the school and the process of education in general and specific exert their influences. In all of this the reader must keep under active consideration the socio-cultural framework with its alienating poverty and dependency. Finally, we must confront in complete frankness and concern the relationship of the Indian community and the school. Though attention will be focused on each of these issues in turn, qualifying and coordinating allusions are offered to provide balance and to counter the notion that a simple abstraction of each subprocess can be validly effected.

The Indian Child and Learning in School

We are here concerned with both the content of the learning-teaching process and the manner in which it is undertaken. We start with an obvious premise that is too often left unstated: It is not possible to develop any degree of personal effectiveness and competence in our nation unless one acquires skill in certain basics--reading, writing and arithmetic.

It may seem trite to refer to the "3 R's" though we can dignify this kind of learning by making reference to verbal and quantitative achievement. Still if these skills are not gained, later learning must be hindered. Abstract ability, for example, is often premised upon a certain level of linguistic and symbolic proficiency. It may be theorized that the initial weaknesses of Indian children in these areas have progressive and cumulative deleterious effects which increasingly impede intellectual growth and expression.

Part of the trouble encountered in acquiring basic skills is a function of a preschool environment that does not include or display these educational contents, hence the average Indian child enters school with a lower level of achievement than his white or middle class counterpart. Of greater significance, however, is the high probability that not only are the materials employed in the classroom relatively more alien to the Indian child, but the manner of teaching reflects an adult-child association quite different from that which the child experiences outside of school. The result of all of this is likely to be an accumulation of failure experiences with linguistic and arithmetic materials.

It is hypothesized that nothing can be more alienating than trying to understand strange concepts in a stressful setting. Such appear irrelevant and meaningless and a natural concomitant is failure. An inevitable development would be the growth of feelings of powerlessness and futility.

Attending first to lesson content, whatever it may be, the task is to create a positive regard for learning via success experiences, hence the inculcation of competence and effectiveness on the part of the child. Inferred here is the idea that success equals reward which in turn equals improved performance and self-confidence. In a similar vein, Goldberg(1967) cites the importance of producing a "success context" in which learning can take place.

The process is more complicated than these generalities imply. Havighurst(1970) stresses the necessity of understanding what constitutes a rewarding state of affairs relative to a specific subculture. Undoubtedly such a process of definition will have to be undertaken; however, to date, there is tentative evidence that success in solving the tasks provided in school does in general, eventuate in increased motivation to learn plus improvement in basic educational skills, even with culturally divergent groups (Cohen, 1969; Heckhausen, 1967; Katz, 1967).

Programmed Instruction.

Among the many recent approaches designed to maximize success which seem especially appropriate to teaching the Indian child are those which employ the techniques of programmed instruction. Skinner(1965) expounds the philosophy of programmed teaching and learning thus:

> "In maximizing the student's success, programmed instruction differs from so-called trial-and-error learning where the student is said to learn from his mistakes. At best he learns not to make mistakes again. A successful response may survive, but trial and error learning makes little provision for strengthening it. The method seems inevitably committed to aversive control. For the same reason, programmed instruction does not resemble teaching patterned on everyday communication. ...The student may learn to read carefully, to make notes, to discover for himself how to study and so on, because in doing so he avoids aversive consequences... The aversive by-products, familiar to everyone in the field of education, can be avoided through the use of programmed positive reinforcement(pp. 14-15)."

Ausubel(1966b) sees "The principal advantage of programmed instruction,,,is its careful sequential arrangement and gradation of difficulty which insures that each attained increment in learning serves as an appropriate foundation and anchoring post for the learning and retention of subsequent items in the ordered sequence" (470-471).

He also points out the utility of these methods for the "disadvantaged" but recommends modifications in the direction of applying programming principles to traditional text and oral materials(Ausubel, 1964).

Among the reasons offered for the probable success of programmed approaches are "lucidity of presentation, sequential arrangement, clarification, consolidation, and integration of related materials:(Ausubel, 1966a: p. 257), and "gradation of difficulty"(Ausubel, 1966b: p. 469). Goldberg(1967) adds "the small steps, the limited probability of error and the constant reinforcement should, theoretically, make such material especially useful for pupils who work at a slow pace, need constant reassurance and many opportunities for success."(p. 393). Two more considerations should be mentioned, namely the fact that the child sets his own rate of advancement through the material and throughout the learning process he is an active participant.

This latter point cannot be stressed enough. Too often traditional education is represented in the paradigm of the active teacher and the passive, quiet and conforming child. Middle class children seem to adapt passably to this kind of classroom situation, but many observers(Deutsch, 1967; Kohl, 1967; Riessman, 1963) have commented on the short attention span and considerable physical activity of lower class and minority pupils. The role of activity in learning has been discussed many times, and most recently with regard to programmed instruction(Stake, 1964). The evidence is that activity in learning does relate positively to efficiency and amount acquired, thus if these children can have their tendencies along these lines channeled via the programmed medium, one can expect improved learning and performance.

Unfortunately there is no impressive body of research demonstrating the superiority of the programmed approach with lower class and minority children. This writer expected to locate many studies of this nature, but instead found very few, the results of which are by means definitive. Resnick(1964), working with lower class urban children exposed to programmed instruction showed that sex and ability related in the same way to performance as has been evidenced with other teaching approaches.

Walpass(1967) tested a programmed reading couse with "disadvantaged" elementary school students and claimed that his experimental group revealed superiority in vocabulary growth over other pupils taught by traditional procedures. Workbook taught pupils were, however, equivalent in reading skills to those taught by the programmed method. In another study(Jeffs and Jesser, 1967), programmed instruction in English seemed to enhance the self-acceptance and concepts of highschool students.

Programmed instruction is not an "end all". It is one method among many which would appear to have theoretical potential in countering alienation from educational content. It will not reduce the role of the teacher in the classroom, but by involving the activity of the student to a greater degree than heretofore in the learning process, it will require more individualized teacher-pupil contact. The problems of motivation, boredom, practice and review among others are still present and Sohn(1963) discusses many of these relative to the classroom.

The Question of Meaningfulness of Curriculum Content.

Much is currently made of the fact that educational materials are most relevant to the mainstream of American society and are largely alien to the experiences of lower class and minority children. It has been reasonably hypothesized that the development and use of texts and lessons based upon the everyday life of divergent peoples should stimulate interest and motivation for learning. "Relevance and Meaningfulness" have almost acquired the status of platitudes among modern educators who deal with the poor and minorities. Though the idea of creating educational materials that relate the child's and the community's existence to the classroom is not new, it does not seem to have gained much of a foothold with the exception of content that ties to anglo-oriented, middle class referents. But even this has an unreal quality, as witness readers dealing with Dick, Jane, Spot and similar mythological figures. As mentioned earlier, Willard Beatty of the BIA attempted to provide an entre into this area some years ago, but his initial efforts failed to bear fruit.

According to a good portion of the recent educational literature, we may be entering a new phase in curriculum and teaching materials development. One spur to these emphases seems to be from the liberal-radical fringe of education. Though the works produced by writers and teachers of this persuasion possess a sensationalist flavor, many of the arguments offered merit serious attention. Stripped of their often strident quality, one reads of the deep concerns of troubled and dedicated teachers, and if a single point can be abstracted from these writings it centers about notions of relevance in teaching and learning methods and contents. Relative to the Indian situation Riggs (1968) points out that the Indian child "is living in two different worlds. One is reality, the other is not...school...is not reality. The reality is the way he, his parents, relatives and friends live, and this is what he associates with real life, the school world is just a wrold of intangibility. "(p. 19).

Glasser (1969) provides a balanced view of the relevance question, illustrating a number of the applied and theoretical considerations that must be introduced. Passow (1963) and Postman and Weingartner (1969) stress the creative role of the teacher in devising materials that utilize the common experiences of children in the classroom. Though many efforts are now being made to develop such items, there is little doubt that the burden will fall back on the individual teacher in her own idiosyncratic setting.

Unfortunately, we do not appear to have research to turn to for the possible assessment of the utility of "relevance" approaches. The theory seems good, and its implementation may well reduce the distance between the school and the child. The latter should then be able to see that the teacher and school value him and his world enough to make them central concerns in education. Following some of the models provided by Glasser (1969), Holt (1964; 1967; 1969) and Kohl (1967), educators of Indians should be able to innovate in such a manner that the transactional process of improving learning and building pride in self and one's heritage will be constructively furthered.

Education by Indirection: The enhancement of personal worth.

Relevance in Indian education may have no greater significance than through what Schusky (1965) terms "The Right to Be Indian." The objective circumstances of Indian life can hardly produce other than alienation and frustration. To the extent the schools leave Indian history, culture and peoples out of their curricula, they may participate in this process of degradation. The idea is that if the Indian child learns about his people and their past and present values, he will come to see his own worth and dignity. Learning will first be enhanced because of a growth in its perceived intrinsic importance and second because the child should develop additional ego strength to confront the frustrations concomitant with school for which Indians frequently seem to have low tolerance.

Chief among contemporary pioneers in developing both an educational philosophy and methodology for the education of Indian children in their own traditions plus a psychosocially based view of their position in the current world is Dr. John F. Bryde of the University of South Dakota. His "Modern Indian Psychology" or "Acculturational Psychology" (Bryde, 1967) appears to be increasingly gaining recognition and acceptance. Much needed is a research evaluation of these materials and programs.

Related to the above and apparently designed to provide foundations for such work within the school and community are courses, books, phamphlets, etc. which may foster an improved understanding of Indian circumstances. For example, the Community Mental Health Program at Pine Ridge recently offered a course on Oglala culture to Indians and non-Indians. In Idaho, a comprehensive guide for teachers of Indian pupils has been published. Titled, "There's an Indian in Your Classroom", this work deals with such topics as Indian self-concept, "building pride in Indian heritage", educational and language problems, etc. (Idaho State Department of Education, 1969).

There can be little doubt that American schools have made minority life and history invisible, and that it will be better for all of our people if they are exposed to the traditions, values and heritage of divergent groups. One can also see how development of a sense of pride in group identification may be reflected in anti-alienative modes of thinking that counter feelings of powerlessness and perceptions of meaninglessness.

Enthusiasm for such programs may propagate a new set of myths regarding the Indian to replace those that have existed in the past. This caution needs to be continually reaffirmed since there are signs that such may already be taking place. For example, much loose writing talks about the non-competitive, cooperative nature of Indians and their value on "adjustment to nature". Each of these themes bears a grain of truth relative to various tribes, but by no means do they include all Indians. So here we have the problem of overgeneralizing. Second, we recreate the "Noble Red Man" myth in which the Indian becomes the sole possessor of values highly regarded by those of liberal political, economic and social views. What has dropped out of the picture is the reality of life in survival economies with all of the human strengths and weaknesses that these peoples, as all others, have possessed and manifested in their daily routines. When stated as above, values have a compelling quality that overrides situation, circumstance and history. They suggest that the Indian child of today is a product of an unchanged tradition which must, of course, be simplistically regarded.

Turning to the specifics of values, it is difficult to buy the inferred image of the Indian as less competitive and more cooperative than middle-class whites when time and cultural setting preclude valid comparisons. How much of what we observe today in and out of the classroom with regard to Indian pupils can be interpreted as a function of poverty, deformed, and selective cultural residues, and the coping efforts of the Indian child in the school context with its alien pressures. It is to be doubted that any truly knowledgeable individual, Indian or not, would subscribe to the myth that it is the "Indian way" to be non-competitive and cooperative, implying usually that it is the "white way" to be competitive and uncooperative, hence fundamental and irreconcilable conflict. The competitiveness of Indian children is well illustrated in athletic events, and also in the classroom, as this writer has observed in the sea of hands that greets the teacher's questions in certain seventh and eighth grade classrooms. Responsiveness is a function of the teacher, the material being studied, the classroom atmosphere and innumerable other elements. In like manner, "adjustment to nature" can be drawn too sharply. Qualification comes quickly with recognition of the nature of a hunting economy and the vicissitudes of an existence in which enemies, disease, and climate posed almost insurmountable obstacles to individual and group survival. Again, it is to be questioned whether Indians "adjusted to" these conditions or "coped with" them to the best of their personal and collective abilities.

The foregoing remarks are intended to counter all myths, past pro-anglo and white ones, and the newer citations in uncritical support of the Indian. Indeed courses and programs in Indian culture, history and heritage would seem most appropriate in schools with large numbers of Indian pupils. They also seem necessary in white schools in the same areas, and to some degree in schools throughout our nation.

One final caution. There is the implication in some of the writing supportive of this approach that the teaching of Indian heritage will right all wrongs and build the spirit and self-confidence of Indian students to such an extent that low educational performance and failure to continue schooling will no longer be significant problems. As necessary and desirable as these culture-courses may be, they must be regarded as only one meaningful item in the educational armamentarium. Their effect on the extra-school economic and political settings is likely to be negligible and this domain may be where the real problems lie.

Language in the School: the problem of bilingualism.

Attention was earlier directed at a confusing literature regarding the effects of bilingualism, co-ordinate and compound, as opposed to monolingualism. The available literature does not permit a verdict in favor of teaching either English or English and a local tongue. The role of Indian language usage in the home must also be considered. Findings that Navaho children who learn both English and Navaho at home (compound bilinguals) do less well in problem solving than coordinate bilinguals (those who learned Navaho at home and English at school) need rechecking and assessment with other groups, and are not convincingly explained (Stafford, 1968).

Cazden and John (1968) discuss at length the Whorfian hypothesis that one's form of thought or cognitive style may be influenced by language. They note observations on Indians in favor of such a view, but also claim "there is no evidence to support the assumption that one language is superior to another as a tool of cognition." (p. 10).

The meaning of language may come to the fore relative to the noncognitive realm. As already observed, language can serve a personally protective and group-identifying function (Lester, 1968). If it is tied to a cultural setting of marked divergence from that of the school it may well impede intellectual development along traditional educational lines. Nevertheless, language remains an integral part of a culture and where it is a viable medium of communication, it cannot be disregarded by the school (Young, 1965). Obviously before a position can be taken on how the school should relate to a native tongue, the meaning of this language should be understood in each local setting.

To illustrate this last point, let us examine what we know of language relative to the schools on the Pine Ridge Reservation. Maynard and Twiss (1969) note that 52 percent of the Pine Ridge population are considered Mixed Bloods and 48 percent are Full Bloods. The incidence of the latter seems to be declining over time, hence only 41 percent of those under five years of age are Full Blood. Full Bloods are overwhelmingly Lakota-speaking and also bilingual. In addition there is only a slight reduction among this group in the usage of Lakota with decreasing age. In contrast, 60 percent of Mixed Bloods, 15 to 24 years old speak only English and 29 percent are bilingual. In local homes, bilingual patterns obtain in 44 percent and only 10 percent speak mostly Lakota with 5 percent exclusively communicating in this way.

A recent study on Pine Ridge (Autotronix Incorporated, 1970) in three schools, one of which shows the highest proportion of Full Bloods on the reservation(Loneman), the other two being in Pine Ridge itself, and probably revealing an undue number of Mixed Bloods, reveals some interesting views on the part of the children relative to language in the school. Of over 200 pupils from grades seven through twelve questioned, 27 percent feel they can speak Lakota well, while 44 percent either do not speak it or can barely converse in Lakota. Still some 66 percent wish the school taught Lakota instead of English, while 55 percent desire the teachers learn and speak Lakota. Concurrently 80 percent of the pupils also wish they could speak and write English better. Fifty-two percent of the students state that their parents speak Lakota to them at home. This is not markedly discrepant from Maynard and Twiss's findings of about 59 percent.

The above findings are complex and before any definitive answers could be given as to what the schools should teach, the voice of the community would need to be heard. Hints are, however, present in support of a bilingual program, at least on an experimental basis. Undoubtedly, arguments could be advanced as to whether this should be offered on all grade levels or only the upper ones, and then on an experimental, voluntary basis. Another variation may center about a selective teaching of a local language in order to help the children bridge the gap between their experiences and the concepts of general-American culture taught in the schools. In the writer's view, the questions raised regarding the nature of Indian language instruction within the schools has not been formulated in any depth. Generalizations such as found in the 1969 Report of the Special Subcommittee on Indian Education of the Senate need considerable detailing and local specification (U.S. Senate, 1969).

Arguments regarding the teaching of Indian languages, however, involve considerations of another kind, namely the preservation of something inherently valuable for future generations. We appear to be living in a time that recognizes the importance of ethnic cultural variation. The "Melting Pot" myth has been questioned for many years(Gleason, 1964), and the utilization of the schools to maintain the best of a proud people's heritage is not to be taken lightly. The writer supports some kind of formal teaching of Indian language on these grounds alone. In addition, programs of this nature should possess potential anti-alienative value, though this will have to be evaluated via research.

Another aspect of local language instruction which seems to have been ignored in all discussions of bilingual education to which this researcher has been privy, concerns the teacher. The study cited above indicating that over half of the Indian children studied wish their teachers could speak and understand Lakota has considerable ramification for school-community relations-an area which will be discussed later. Programs in which teachers would undertake to learn local Indian languages should be given very serious consideration. If Indian children are to learn English, it is not asking too much for their teachers to comprehend a native tongue. In fact, it might be a most exciting and broadening experience.

One final thought needs to be phrased relative to language instruction. Whether or not an Indian language is taught, the Indian child must develop proficiency in English, thus great attention should continually be afforded the strengthening of programs in this area.

Summary: Learning in the School Setting.

An attempt has been made here to look at three aspects of curriculum-learning complex relative to the Indian child in the school. Programmed Instruction was examined not only as probably significant in its own right, but as an example of the kinds of methodology-technology which must be thoughtfully regarded when machinery is afforded attention. To counter alienation and spur learning, adequate focus must be provided the strengths and needs of the child for activity, reinforcement, and his own self-determination and involvement in learning. Technology is a source of fascination and enthusiasm in modern education, but for optimal use application needs to be placed in the perspective of the orientation and abilities of the children for whom it is designed rather than become an end in itself. It must also be set up against a theory for validation. In the present work, stress is on the anti-alienative potential and achievement motivation stimulus of devices such as now available.

Meaningfulness of course content and language are issues that pervade the total curriculum. Unfortunately we are reduced to sophisticated speculation and theory when considering the how and what of curriculum in regard to these areas. Research is lacking and there is the likelihood of being unduly impressed by the anecdotal reports of student progress using some of the procedures suggested. How to separate these from the influence of highly motivated, charismatic teachers has yet to be discovered. Considering the seriousness of the problems educators confront a full trial of the newer ideas along these lines is merited.

No effort has been made to survey the range of programs that might have utility to meet the ends suggested here. In a recent study of the State of Colorado (Bureau of Educational Research, 1970), 15 innovations in educational technology and 32 curriculum variations were reported. Undoubtedly many more are continually being tried. It would not be inappropriate for the education arm of the BIA to delegate more time and personnel in order to ferret out programs which appear to have been research validated and which may suggest fruitful application to Indian education.

The Indian Child and the Teacher

Curriculum and technological developments are most unlikely to eventuate in success unless the teacher-pupil relationship is taken into consideration. Indeed this pattern may be more significant than all of the ingenious equipment and educational materials that have been devised to stimulate learning.

Writings on what constitutes good teaching practice and the characteristics of good teachers are legion. Translating the generalities usually offered into specific classroom practices is quite another thing.

The teacher is in a most sensitive and vulnerable position. When brickbats are tossed at education and the schools they are likely to hit the teacher. The teacher of Indian pupils is no exception to this rule, and, in fact, seems to come in for especially severe criticism. Though it was not a purpose of the present study to assess the behavior of teachers in the classroom or to understand their attitudes and outlooks, a few anecdotal observations are offered since the writer sat in many classrooms during the course of this work and spoke at great length to a large number of the teachers. The general impression conveyed by the teachers was of sympathetic concern for their charges. Their educational role tended to be taken quite seriously; however, a fair amount of conflict was present. This seemed to be a product of frustration at not accomplishing all that was desired and oftentimes not understanding why the children did not feel the same way about the material studied as did the teachers. Queries were continually directed at the researcher as to what might the teacher do. The eagerness and willingness of the teachers to seek specific information for solving of classroom problems was laudable, but frequently appeared to signal feelings of helplessness and futility on their part. Still, their readiness to seek aid from anyone who might be in a position to proffer it was always evident.

These remarks are not intended to excuse bad teachers or poor classroom practices. Every school and every system probably includes such; however, it remains this writer's opinion that there exists a reservoir of good intentions and desires on the part of the great majority of teachers of Indians to accomplish the formidable tasks of education. It is hoped that the following suggestions will provide some constructive directions toward these goals.

The **Behavioral Approach: Classroom** Management and Reinforcement Procedures.

Good, experienced teachers have always been aware of the fact that the way they relate to a child is both a determiner of the child's performance and his conduct. Recent research has formally confirmed these effects (Meichenbaum, Bowers and Ross, 1969; Rosenthal and Jacobson, 1968). This work centers about two aspects of the child-teacher relationship: 1) the expectancies of the child's behavior held by the teacher, and 2) how these expectations condition the response of the teacher toward the child, and in turn call forth a specific activity pattern from the pupil. Present concerns focus on changing the nature of the child-teacher transaction in order to modify the students behavior along the lines desired by the school. In the course of these programs, the assumption is implicit that the teacher's responses will vary as his or her expectations also change.

The Significance of Teacher Expectations.

Examining first the problem of expectancy, the evidence points to a set on the part of teachers to expect behavior problems and poor performance by children from lower class and divergent ethnic group backgrounds. Similar views have been expounded with regard to Indians in general and Indian children in specific within the school setting (deMontigny, 1969; Pine Ridge Research Bulletin, 1970). Anticipation of poor performance comes under the heading of those unintended things that are taught children in the classroom but which do not usually reach the awareness of the teacher (Coles, 1970). There is also the likelihood that these subvocal views are reinforced by teachers relative to each other when they work in the same circumstances and tacit acceptance of such an outlook may be sponsored by educational administrators. The system, struggling to raise the level of excellence, confronts itself and may constitute as important an obstacle to its avowed purposes as the objective situation with which it must deal. One cannot really expect more of a person than he finds is apparently expected from him, and this may be the lesson taught in many classrooms.

One initial step toward countering this depressive cycle might be a program of self- and organizational scrutiny by the teachers and administrators that would examine in depth the question of low behavioral and performance expectations. This has to require detailed specification of class content plans, expected levels of accomplishment etc. Maynard and Twiss (1969) set the goal in general terms when they recommend "Upgrading of the educational system not only through raising academic standards but by demanding and expecting high level performance on the part of Indian students." (p. 177). Conveying the impression that more is acceptable and less isn't does not take place in a vacuum. The students and their parents need to be involved in the process of building expectations. It cannot be summarily imposed, lest it simply exact opposition. Still, the final encounter and realization of these goals occurs in the classroom and will not be accomplished by a hardening of lines between the teacher and the class. One set of procedures which has proved useful to such an end has been variously defined as Behavior Modification, Classroom Management, Contingency Management and Reinforcement and Operant Approaches.

Behavior Modification.

Reports of these techniques in the classroom often claim success that seems to be in the realm of fantasy, and undoubtedly the methods employed are confounded with the excellence of the teachers who use them. Nevertheless these methods deserve evaluation.

Behavior modification approaches are similar to those involving Programmed Instruction. In fact they derive from the same theoretical framework (Lindsley, 1967). On a practical level both emphasize immediate reinforcing feedback, the activity of the learner, and the development of a success orientation. The transactional unit now becomes the teacher and the child; previously it was the programmed device relative to the pupil.

As already noted, the goal of behavioral techniques is to improve the classroom behavior of the student and academic performance. Most frequently these objectives are combined, especially when the teacher works with lower class and minority children. One strength of these procedures for structuring an educational environment is that they may even be applied at the preschool level. In one study with economically disadvantaged preschool, Spanish-American children, Nimnicht and Meier (1966) demonstrated an increase of eight points in IQ for an experimental group after only seven months while a control group showed a mean drop of three points. In this program, the child's own activity provided the basis for reinforcing feedback.

The Southwestern Cooperative Educational Laboratory has been quite active in developing classroom management strategies and token reinforcement methods which seem to be quite successful in developing reading skills with young children (Speiss, 1969;1970; Speiss and Olivero, 1969). Becker and his coworkers (Becker et al, 1967; O'Leary and Becker, 1966) have manipulated teacher attention and token reinforcement in elementary classrooms to reduce deviant behavior and improve performance. Such studies and programs show that it is possible to gradually delay reinforcement without adverse effects; however, teacher efforts may not be effective if there is counter-pressure from the peer group. Another fine exposition of how these reinforcement procedures may be applied to improve learning, reduce aggression and aid non verbal children become responsive has been provided by Hamblin and his associates (1969).

Efforts to teach behavior management principles appear to be proliferating. Very significant work in the development of materials and instructional methods has been carried out by Dr. Ogden Lindsley, Professor of Education at the University of Kansas Medical Center in Kansas City. He has devised procedures for teachers, parents, children and oneself which are highly regarded. Another noteworthy scholar is Dr. Lloyd Homme of the Westinghouse Behavior Laboratory in Albuquerque. Hasse, Axtell, James and Storey (1967) have also applied reinforcement techniques to reduce disruptive classroom behavior. As part of their work, Hasse and Axtell (1967) developed a programmed text to instruct teachers in the method.

These approaches are not effective regardless of who applies them. They occur in a social context and require sensitive and knowledgable persons in order to effect desired changes (Bandura, 1969; Franks, 1969). In other words they may not be successful with everyone who undertakes training of such a nature.

Nevertheless, it is the writer's opinion that teachers of Indian children are likely to benefit from such experiences and in the long run, so will their students.

The Teacher and the Teaching Method.

One cannot talk about the teacher in relation to the pupil without recognizing the nature of the teacher-pupil transaction. How does the teacher teach? A massive research literature has slowly been developing regarding the techniques employed by teachers and via these to come to an understanding of what effective and successful instruction is (Biddle and Ellena, 1964). Unfortunately, we are still far from having the answers sought.

One way of viewing the teaching process sees the traditional teacher as active and powerful in the classroom and the student as passive, conforming and powerless. The potential for creating and maintaining alienation is present, and though such may occur to some degree in all children, other factors come into play to mitigate the growth of this process. The writer believes, as has already been noted, that Indian children, and, of course, all others need to be given increasing opportunities to become constructively active in school. This implies the necessity of a reduction in directive teacher control with a corresponding enhancement of pupil responsivity. More easily said than done, but essential.

Recent work by Soar (1967) underscores these possibilities. He assessed 55 elementary classroom climates and rigorously attempted to determine relationships between various dimensions of teacher behavior and student growth. Of most significance probably was the finding that indirectness of teacher control seemed to stimulate more improvement in reading and vocabulary than occurred with direct teacher control. The problem is far more complex than this one study indicates and other research sometimes challenges findings such as these (Ryans, 1964). For example, Flanders (1964) shows indirect teaching to be superior for mathematical learning but not for social studies.

The suggestion may be advanced that directness of teacher control produces dependence on the part of the child or in divergent groups possibly rejection of the teacher and what is to be learned. Flanders (1964) implies that indirectness of teaching may be an indication of teacher flexibility and he does show general tendencies for improved attitudes and achievement on the part of pupils subjected to such methods.

Relative to the reservation setting, it is hoped that behavior modification approaches may permit increasing indirection of teacher control and possibly spur student learning. Again workshops need to be sponsored to inform and train teachers in these procedures. In brief, the activity and independence of the students is being employed more and the teaching process also becomes one of constructive learning for the teacher. A note may be taken from the work of Gage (1960) to utilize the students views as guidelines for their instructors. He observed that when teachers are given feedback regarding how their pupils see them and what the ideal teacher would be like, according to the students, teacher behaviors are seen to move into line with the ideal expectations. Simultaneously teacher's insight into their pupils appears to increase. Procedures such as this may well have constructive possibilities.

A few words are in order regarding the question of discipline, for the notion of indirectness may suggest an abeyance of disciplinary concern. The main reason for teacher failure in inability to maintain control in the classroom. Standards must be upheld and discipline enforced or the entire educational process will become a sham. Still this can be done in many ways. The teacher who displays a sincere interest in the children in his or her charge has a high likelihood of making inroads into the peer group, not that he is really an "insider" but he is less of an "outsider". As Becker et al (1967) suggest it might be desirable to ignore deviant behavior in the course of establishing a behavior modification approach unless someone is likely to be hurt. Rules must be clear and positive and occur within a context of positive human considerations. The child being punished must know why and also realize that he is regarded by the teacher as a person worthy of respect and value. Many of the findings of a recent research project on the Pine Ridge Reservation support the notion that both the children in school and their parents are most positive toward a good disciplinary framework in the school (Authotronix

Incorporated, 1970).

The Peer Group.

Volumes could be written on the role of peers as both supporting and countering the efforts of teachers, parents and the school. A brief comment regarding a direction that might be pursued here is in order. Though we have much evidence to suggest that Indian students value education greatly, there is also reason to believe that there is strong pressure from one's peer group not to stand out and perform academically (Mindell, 1968). This is common even in middle class, white settings. Educators thus come to see the peer group as a focal point of opposition to their efforts. One wonders if peers could not be used as teachers in order to stimulate their own learning and those of others either at their current level or with younger children. A within-school corps of student teachers would be developed and this might possibly stimulate identification with the school, course content and thereby motivate performance and continuation of education. Student-teacher seminars should also take place to effect two-way communication which would benefit both groups. Havighurst's (1970) stress on the local reward system must necessarily come into play for those who understand this best would now be called upon to utilize such in the service of the school and themselves. The outcome ought to be a mutually supportive relationship between the peer group and the teacher. Idealistic yes, but very much worth trying.

Summary: The Indian Child and the Teacher.

The significance of the teacher in the educational process cannot be overestimated. A great deal of serious self-examination relative to the expectations and perspectives Indian teachers hold of those whom they direct their efforts needs to be carried out. It is believed that the teachers are, in the main, quite willing to take on such a task if it will lead to improved relations with the children and a rise in pupil achievement. Among other steps to be taken in the pursuit of such a goal would be a general upgrading of educational requirements and expectations. Currently, students may actually feel burdened and demeaned by low expectations toward which they react negatively.

Behavior modification techniques are suggested as potentially fruitful ways of relating to the children. The control elements of these methods, it is hoped, may permit greater freedom from the restrictions the pupils impose on themselves and those the school feels it must sanction to "keep the lid on". Positive reinforcement looks far more promising than the negatively reinforcing frameworks that are too often employed.

Efforts have to be undertaken to find means of allying the children with the teacher. The activity of the child and his peers needs to be realized in the teaching-learning process, not as an outside force to be held in check. The development of self-reliance might then replace dependency and counter alienative outlooks if the child can gain a more active role in which learning and personal satisfaction go together.

The School and Its Major Programs

It is fairly standard practice on the part of many persons, Indian and non-Indian to decry the role of schools whose students are largely Indian. These institutions are summarily defined as "white" schools, a synonym for educational approaches that see integration into the mainstream of American society as their prime goal. The assumption is that this is inherently wrong. It is true, as has already been noted, that American schools have not been geared to the needs of children from divergent groups, ethnically and economically. In addition, the educational content purveyed by the schools rarely includes anything of any substance about minority group life, history and thought. This is a serious shortcoming and initial efforts are being made to correct such deficiencies.

Without a doubt there is great room for improvement in Indian schools and their programs. We have seen evidences of poor performance and high rates of failure to continue schooling, nevertheless there are strong indications of steady growth in amounts learned and grade level attained (Bennett, 1969). Citing the Coleman Report, Anderson and Johnson (1968) bring up another fact of life often forgotten by critics of the schools, namely that "the largest portion of variation in achievement among students who attend different schools is not due to differences in the school programs, staff, facilities, but rather is a consequence of variations in the background of children when they first enter school" (p.2). In sum, it is not sensible to look to weaknesses in the schools as the primary source of the academic problems of the children. The theme repeatedly emphasized in this report is one of transaction and the school must always be considered in its proper context.

Still the school plays a role in relation to the academic and intellectual strengths and weaknesses of its students. If, as suggested above, background on entering school is of primary importance, then the educational authorities must work to influence that background. Pre-school and head start type programs thus have a place. The literature in this area is controversial, but hopeful. One study (Griffiths, 1967) with three to five year old Indian children exposed to a nine week nursery school program was promising in that it revealed signs of higher academic attainments approximately a year after this experience. As with many of the Head Start follow up studies, this work may be inconclusive. The need for research along these lines is graphic. In a similar manner, programmatic efforts of a specific type, e.g. Montessori, are being tried out and also need solid research evaluation. Nevertheless, some kind of preschool work may eventually go far toward reducing the frustration and anguish Indian children may feel when they are ill-prepared to cope with much standard educational material.

The variety of comparative devices used in school systems depersonalizes instruction and may go far toward producing alienative outlooks and low achievement motivation. Few practices are possibly as influential as the traditional organization of the school into grade levels. All that can be suggested here is that nongraded school possibilities be examined either for some or even all levels though application to the secondary area may not be meaningful. Recent writings on this movement (Miller, 1967) claim that this approach maximizes the potential for individualized, flexible instruction. It is interesting to note that there is a group of teachers on the Pine Ridge reservation who have had experience with one room schools which do possess many features of an ungraded system. The necessity of relying more on the student and providing him with special attention seem to be characteristics of these circumstances that might be quite useful for teaching Indian children.

The writer is not trained in the field of education, and though he has undoubtedly extended himself far beyond what discretion would dictate, he finds himself especially limited in discussing the school and its programs. A superficial survey of developments in this area is overwhelming in its impact. Illustrative of this is the Colorado report cited earlier (Bureau of Educational Research, 1970). This refers to 23 innovations in school organization alone. Sixteen additional programs are concerned with staffing modifications relevant to the area under discussion here. Again all that can be called for outside of the rather general directions offered above is an organized effort on the part of educators of Indians to acquaint themselves with these efforts. The necessity of evaluating these programs relative to a theory and research cannot be stressed enough.

School - Community Relations

The "Culture of Dependency".

School-community relations must first be viewed within the context of Indian-white historical and contemporaneous contacts and perspectives. Traditionally, Indians are seen by whites and themselves as "wards" of the government. At every turn, the situation has been one of dependency. Dominance-subordination easily translates into images of superiority-inferiority, power and helplessness and hopelessness (Leon, 1965). Hagen and Schaw (1960) point out how the Indian consciously and unconsciously channels his hostility regarding his dependent status into an angry, but unverbalized challenge to whites to see if they can correct current wrongs without the active involvement of the Indian. Passive, sullen resistance is therefore the Indian response to white authority and it often appears as a form of subversion, saying in effect, "I'll be damned if you can make me do or be what you want unless you give me the power." When he considers its breadth and depth, Macgregor (1969) characterizes this relational pattern as a "culture of dependency".

He further sees the outcome relative to education as "alienation and flight to the Indian home and community" (p. 5).

But how to counter this? Leon (1965; 1968) sees the only alternative to be the transfer of power from the white to the Indian. "The agency must consciously and deliberately reverse the authority pattern" (Leon, 1965: p. 727) thereby to create a "process which involves the Indian throughout in determining his own fate." (Leon, 1968: p. 236). The prescription only sounds simple.

Opening Lines of Communication.

The present study, plus others, (Autotronix Incorporated, 1970; Mindell, 1968; Wax et al, 1964) reveal the resevoir of positive attitudes most Indian adults and children, hold toward education and the schools. Repeatedly, interview comments read as if the schools are the only hope that parents see for their children. And it is not merely that education is essential to obtaining the right kind of job, but also that it is inherently valuable in itself.

Still the perception exists that the schools "have made virtually no attempt to establish communications with Indian parents and other relatives, let alone to give them any advisory role or adopt curricula and methods to their culture." (Carnagie Quarterly, 1969: p. 5). Probably the only constant element in Indian education is change and increased efforts to break down school-community barriers are continually being undertaken. A recent seminar system set up on Pine Ridge to bring parents and educators together in order to give them opportunities to state their feelings has resulted in many comments by the Indians about how gratifying it is to be heard and to make these contacts (Autotronix, 1970).

The first step is then to open communications between school personnel and parents as equals. In local settings there has always been some mutual understanding of these problems but these were often tenuous and transitory as personnel and situations changed. The general Indian-white context did not really support such relationships and formal roles also tended to impede their development. It is clear that there is still much need to rectify these difficulties.

Seminars and Home Visitations

The parent-teacher seminars now set up on Pine Ridge are a definite step in the right direction. These need continual scrutiny with follow-up so that they do not simply reduce to dead end gripe sessions. The recommendations of parents must eventuate in change with feedback or the traditional cycle of frustration and alienation will again repeat itself.

Teachers and parents have to appreciate the human problems that each confront and understand the hopes and goals nourished by the other. Contact is the first prerequisite to the realization of such ends. In 1966, the writer proposed one approach to the solution of this dilemma, namely having the teachers visit the parents of their pupils in the latter's homes. This is now being done, though on a limited scale. Some parents have commented on how useful and pleasant this experience is. Undoubtedly there will be a variety of reactions to such efforts. The responses of two teachers are also most enlightening.

> Today...I went out to visit the homes of dropout students on the reservation. I had a completedly different attitude when I went out.... I visited homes...and saw some of the most despicable and despairing situations that has been my experience to see....There are no words to describe how I feel, but I am not the same as I was six hours ago and I don't think I ever will be.

Another remarked "I was surprised at the conditions under which many of these children live. I can now see why many of them have difficulty in getting themselves to school on their own initiative."

Education is sometimes a painful process and it always takes place on a two-way street. Seminars and teacher visitations are only a first and small step in the process of bringing the school and community together.

The Question of Community Control.

Throughout our nation, the pattern of school-community relations is invariably one of control of the schools by the community, usually via elected school board members. The situation is quite different with Indians. Though about two-thirds of Indian children are in public schools, Indians are usually underrepresented on the governing boards of these schools. Federal schools sometimes form advisory boards of community members, but this seems rather uncommon. Other factors also come into play on the national scene which may also find expression relative to Indians, namely, that the poor and minorities are rarely found on school boards (Cicourel and Kituse, 1963).

The situation is not as simple as some would have us believe. Wax (1967) points out

> If we were dealing with the schools of a generation or two ago, then the situation might be bettered by democratization--involving the Sioux parents in control of the schools. This system of local control was not perfect, but it worked pretty well. Today the problem is more complicated and tricky: educators have become professionalized, and educational systems have become complex bureaucracies, inextricably involved with universities, educational associations, foundations, and federal crash programs. Even suburban middle class parents, some of whom are highly educated and sophisticated, find it difficult to cope with the bureaucratic barriers and mazes of the schools their children attend. It is difficult to see how Sioux parents could accomplish much unless, in some way, their own school system were kept artificially small and isolated and accesible to their understanding and control. (p. 45).

The key words are "understanding and control"; neither can occur without the other. Education on the reservation should thus be provided with a purpose and a direction to offer local Indians an opportunity to learn fully about the schools and education, and in the course of this, to gain increasing control over their own schools. Unfortunately, this sounds as if a selection process must be initiated to see that authority is given to those who "learn their lessons well" as such is judged by whites. Action must be based on the principle that even though understanding leads to control, the reverse is also true: control leads to understanding, knowledge and effectiveness. One is less likely to put forth effort unless he has some control over what he is attempting to do. Dependency does result in learning, but possibly too little and the wrong things. Relative to Indian education, the process is fraught with risk, but such must be taken. It is extremely difficult to expect Indian children to become successful learners if their parents and community are divorced from the schools. The latter must be an integral aspect of the former, which, of course, means the active involvement of parents in the formulation of policy regarding the operation of the schools. There is no doubt that this is coming and the schools should take an aggressive role in bringing it about.

The mechanics of developing community school boards with advisory and decision making capacities will undoubtedly have local forms and variations. Models are available in white communities, but the Indians themselves in conjunction with school officials will probably work out their own patterns of relationship. One example that has been given a great deal of publicity is the Rough Rock Demonstration School. Few, if any, educational programs with Indians have gained as much attention and praise as this experiment; (Conklin, 1967; Henninger and Esposito, 1969) however, serious questions have recently arisen concerning the accomplishments of this school and its underlying dynamics. A study by Erickson and Schwartz (1969) pointed out, among other findings, two major observations: 1) that the impression fostered about the Rough Rock school being "naturally" superior to those of the BIA does not bear close scrutiny, and 2) the local school board seems to have surprisingly little to say about educational policy. Wax (1970) puts these considerations into practical perspective when he states:

> there is no reason to anticipate that a school system which has substantial Indian local control will appear any better than its federally operated counterpart, and there is much reason to anticipate that it will appear far worse than the federal school when the latter had the benefits of a dedicated, professional career employee as its supervisor (p. 9).

Wax further adds some of the qualification that reality has a way of introducing rather sharply into such situations.

> A local Indian school board cannot, out of thin air and its own imaginings, conjure up a successful and critical role for itself, nor can it do so out of short training programs in which they are lectured by professional educators and administrators. They need the opportunity to observe how various kinds of schools operate and to study how the functioning of the local school board integrates with that operation. (pp. 9-10).

This is not an overnight process no matter how enthusiastic supporters of local control may be. It will be laborious and troubled, yet there cannot be any real reason for delaying efforts along these lines. As potentially important and desirable, the techniques suggested earlier in this chapter may be, their usefulness will, in the long run, depend upon the kind of community support education obtains, and without the involvement of the home as an agency stressing the significance of learning, little of real substance may ever be accomplished. Community involvement, it is felt, will bring the home into the picture, not as a neutral or negative force, but rather as a positive one.

Summary: School-Community Relations.

The history of Indian-white relations has been one of dominance-submission. This has resulted in a "culture of dependency" in which passive resistance to white-directed efforts to improve the status of Indian groups is commonly found. The prescription may be simply stated though its application will be extremely difficult to bring about. Lines of honest communication need to be opened between the schools and the Indian community. This can best be accomplished by permitting Indian parents and children to express their views within a framework that provides opportunities for the actualization of these ideas in changes within the schools themselves. In addition, there is much evidence of the positive nature of Indian attitudes toward the schools and education, yet many parents feel quite distant from the school settings in which their children spend much of their daily lives. There is the necessity of providing direct personal feedback to the parent and bringing out into the open the sincere interest and concern that teachers have in their pupils. A program of teacher visitations to parents should be formally initiated under the guidance of both the schools and the local community. Lastly, the Indian community must have a more active role in the formulation of basic educational policy. Local boards need to be formed and opportunities provided for a broad range of experiences which will aid in the development of a responsible and constructive approach to the problems of Indian education.

Conclusions

Rather than summarizing all of the points made in this chapter, indeed in this report, it would be best to conclude with a brief statement of principles. These center about the point that the educational problems of Indians can only be conceptualized in a transactional framework that places them in the context of the political and economic realities in which they exist. Though these factors override immediate local influences, any thoroughgoing program must deal with the elemental fact that poor performance and failure to complete schooling is very much a function of alienation on the part of the child in a conflicted community. Poverty leads in part to this frame of mind which then encounters the middle class structure and expectations out of which the modern school has developed. In addition, white, middle class values do clash with the residues of the Indian cultural heritage. The need is first for a clearly stated purpose for Indian education, and a reasonable approximation to such was offered in 1931 by the Commissioner of Indian Affairs.

> The purpose of education for any indigenous peoples of the present day is to help these peoples, both as groups and as individuals, to adjust to modern life, protecting and preserving as much of their own way of living as possible, and capitalizing their economic and cultural resources for their own benefit and their contribution to modern civilization. (Fey and McNickle, 1959: p. 89).

The method for realizing this aim must, in the last analysis, be an Indian one. As Underhill (1944) has stated it:

> The problem for Indians and for whites concerned in Indian education, is to find what elements of white teaching will be really useful to an Indian group, not a burden. When its fitness is demonstrated, the Indians themselves will move to learn it. (cited in Beatty and associates, 1944: p.60).

This may indeed be the final lesson of history; that learning is the essence of progress, and each people must find its own way by choosing the best of what has gone before -- the warrior discovers a new scholarship and his people realize another responsibility.

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Test Forms for Children's Attitude and Orientation Measures

Appendix A

We would like to know how you feel about many things. There are no right or wrong answers to any of these questions, so please write down how you really feel about what you are asked in the following pages. Your answers will not be seen by anyone connected with the school, and will not be put into your school recoreds. Some of these questions will seem alike but please try to answer all of them. Please work quickly, and if you need any help, the person who is giving this to you will try to help out. Thank you very much.

Name____

Sex: Boy___________Girl_______________

Age____

School______________________________________

Grade_______________________________________

Mark (with an X) how you feel. Mark as many as are necessary.

I would like to leave school________________

I hope to graduate high school______________

I want to go to college_____________________

My chances for finishing high school are

very good____________________

as good as those of others around here_____________

pretty bad__________________

When I go out and work for a living, I'd like to be a________
____

Ten years after I'm finished with school, I ought to make about how much money a year.

less than $1000______________	$5000 to $7000_____________
between $1000 and $3000_____	$7000 to $10,000__________
$3000 to $5000______________	more than $10,000_________

OPINION SCALES A-A[1]

Listed below are some things people have said about how they really feel. Please read each statement carefully, think about it and then indicate in the space provided what you really think about the statement. You can show us what you think by putting a circle around the words you agree with. Circle only one answer for each statement. If you don't understand, leave the question blank.

PLEASE ANSWER AS MANY QUESTIONS AS YOU ARE ABLE TO UNDERSTAND.

EXAMPLE:

President Johnson is doing a very good job of running the country.	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree

(THIS ANSWER INDICATES STRONG DISAGREEMENT WITH THE STATEMENT.)

1. I often feel people around here are not too friendly.	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree
2. Trying to figure out how to get ahead in life is just too hard.	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree
3. Most of the time I feel that the work I'm doing is important and useful.	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree
4. In spite of what some people say, things are getting worse all the time.	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree
5. I often feel left out of things that are going on around here.	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree
6. Nowadays children don't give their parents the respect they should.	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree

IF YOU HAVE ANSWERED ALL THE QUESTIONS ON THIS PAGE, GO TO NEXT PAGE.

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[1] This page illustrates the question-response layout for the first 150 items. In the following pages, only the questions are listed.

7.
It's hard to know just how to treat people, since you don't know what they expect.

8.
It's hardly fair to bring children into the world with the way things look for the future.

9.
I get the feeling that people here see most things the way I do.

10.
It's not really up to me to help out if other people are in trouble.

11.
If I had my choice, I'd live my life very differently.

12.
Sometimes I feel all alone in the world.

13.
I don't get invited to friends' homes as often as I'd really like.

14.
Most people today seldom feel lonely.

15.
Real friends are as easy as ever to find.

16.
The world in which we live is really a friendly place.

17.
It doesn't matter so much if you do something bad if it leads to a good thing.

18.
Our world moves so fast that there just aren't any good rules to live by.

19.
With so many different religions around one doesn't really know which to believe.

20.
One can always find friends if he shows that he is friendly.

21.
These days a person doesn't really know whom he can count on.

22.
One should live for today and forget about tomorrow.

23.
If you want to be liked the best thing to do is go along with the crowd.

24.
Things are changing so fast these days that one doesn't know what to expect from day to day.

25.
I feel that I just can't do anything right.

26.
I often feel as if it would be good to get away from it all.

27.
The kind of work a person does is one of the most important things in his life.

IF YOU HAVE ANSWERED ALL THE QUESTIONS ON THIS PAGE, GO TO NEXT PAGE.

28.
When people tell you they will do something nowadays you can usually depend on it.

29.
It's getting harder and harder to have a happy family.

30.
Most people don't know how to enjoy themselves.

31.
Too many people today are just out for themselves and don't care for anyone else.

32.
Sometimes it's all right to get around the law if you don't actually break it.

33.
Most people don't really like what they do for a living.

34.
I feel that I'm losing everything I've gained in life.

35.
I often get the feeling that my ideas are out of date.

36.
Since the future can be figured out fairly well, one can plan ahead.

37.
If a man will work hard and get the right training, he can be pretty sure of getting a good job later on.

38.
The future really looks pretty good.

39.
In order to get along in the world it's best to do what you are told.

40.
When everyone else gives up, on you, you can always rely on your family for help.

41.
Success is more a matter of real ability than luck.

42.
When you want something it really doesn't matter how you go about getting it.

43.
There is little one person can do to make the world a better place in which to live.

44.
Raising a small child today makes anyone worry a lot.

45.
These days a person must look out for himself since there is no one else to depend on for help.

46.
Luckily, most people are able to get most of the good things in life today.

47.
You have to be a little bit bad to make money these days.

IF YOU HAVE ANSWERED ALL THE QUESTIONS ON THIS PAGE, GO TO NEXT PAGE.

48.
Letting people know what you really think will only get you in trouble.

49.
A grown-up person doesn't have to depend on his family, church, or friends.

50.
Most people lead exciting lives.

51.
To get ahead today you sometimes have to be bad as well as good.

52.
There is not much chance that people can really do anything to make this country a better place to live in.

53.
In most ways, life seems worthwhile.

54.
It seems to me that people are acting more and more like animals.

55.
Most people don't know how much their lives are run by other people.

56.
With the kind of young people coming along today, our country will be in safe hands.

57.
Most of the things I do would make my family proud of me.

58.
There is little chance to get ahead on a job unless a man gets a break.

59.
Today a person can hardly do the things he would like to do.

60.
My family has stuck by me through good and bad times.

61.
Getting a good job usually depends on being lucky enough to be in the right place at the right time.

62.
Sometimes I have the feeling that other people are using me.

63.
So many people do things well that you might just as well not keep on trying.

64.
People are too busy to help each other today.

65.
As I see it now, I don't owe my family anything.

66.
If I could live well without working, I would not work.

67.
Nothing seems to turn out right anymore, so why even try.

68.
I worry about the future facing today's children.

IF YOU HAVE ANSWERED ALL THE QUESTIONS ON THIS PAGE, GO TO NEXT PAGE.

69.
There are so many problems to deal with today that sometimes I could just "blow up."

70.
More is expected of a person than he is able to do.

71.
As I see it now, the future looks pretty empty for me.

72.
I feel that people understand each other more nowadays than in the past.

73.
A person's future is a matter of luck.

74.
People say so many different things that one does not know what to believe.

75.
It's important to vote because it can make a difference.

76.
I don't have as many good friends as I'd really like.

77.
Most of the unhappy things in my life have been due to bad luck.

78.
If one works hard enough he is likely to make a good life for himself.

79.
Usually I feel that I can control what happens to me.

80.
Government people aren't interested in our problems.

81.
There is little about our country I'd like to change.

82.
There are so many ideas about what is right and wrong these days that it is hard to know how to live your own life.

83.
These days it's hard to make up your mind about anything.

84.
These days, getting ahead is the only thing that counts.

85.
What you learn in school is useful all through life.

87.
The world is becoming more and more a better place to live in.

88.
I like to do my very best in whatever I try.

89.
I like to be able to say that I have done a hard job well.

90.
I would like to do something really big.

91.
I like to take on jobs that others know are hard.

IF YOU HAVE ANSWERED ALL THE QUESTIONS ON THIS PAGE, GO TO NEXT PAGE.

92.
I like to be able to do things better than other people.

93.
I'd like to be an expert in some job, or something else.

94.
I like to do things that other people find hard.

95.
I enjoy work.

96.
Often I don't do a job I know I should.

98.
When people say I'm not doing well on a job it slows me down.

99.
When I feel nervous it helps me to try harder.

100.
I hope I can go to college.

101.
I often try to think of ways to get out of hard things to do.

102.
Sometimes I do all I can to avoid hard jobs.

103.
I hate to face up to a hard job.

104.
I always finish what I start, even if it is not very important.

105.
Even though I may worry about something I have to do, I usually get it done.

106.
I have trouble getting started doing things I should do.

107.
I try so hard to do the things I should that I usually do not do as well as I would like.

109.
I am often the last one to give up trying to do a thing.

110.
It is the steady worker who usually gets the most done.

111.
I try to do things well, even though I may not like them.

112.
I can't keep my mind on one thing.

113.
I try to read many books each month.

114.
I never do as well as I think I should.

IF YOU HAVE ANSWERED ALL THE QUESTIONS ON THIS PAGE, GO TO THE NEXT PAGE.

115.
I don't like the kind of work that makes you do many different things.

116.
I find it hard to keep my mind on what I'm doing.

117.
I find it easy to work once I have started on it.

118.
Even though it is hard, I always like studying in school.

119.
I enjoy doing hard work more than that which is easy.

120.
I don't believe there is any work I like to do.

121.
I am a careful person in whatever I do.

122.
I always try to get my work done.

123.
I do not like to read.

124.
I have trouble remembering what I read.

125.
I find it hard to get along with my teachers.

126.
I usually get my work done even if it is not very interesting.

127.
I often feel trapped and helpless in school.

128.
The teachers here are very helpful and friendly.

129.
School doesn't really help a person to make a better life.

130.
As soon as I get the chance I will probably leave school.

131.
Children learn things at school that make them be disrespectful or mean to their parents.

132.
I hope that I can go to college after I finish school.

133.
Teachers often want you to do more things and work harder than your parents do.

134.
I would like to be like my teachers.

135.
The teachers here really like the children and want to help them.

136.
I don't think that the teachers really know what is good for the children.

IF YOU HAVE ANSWERED ALL THE QUESTIONS ON THIS PAGE, GO TO NEXT PAGE.

137.
I like to try to get good grades in school.

138.
My mother (the person who brought me up) would like me to do well in school.

139.
I don't see any good reason to stay in school.

140.
The teachers don't really like the parents of the children here.

141.
The work the teachers want you to do is just too hard.

142.
What you learn in school doesn't really mean very much outside of school.

143.
My parents wouldn't like it if I left (quit) school.

144.
If I left (quit) school, I wouldn't really miss anything.

145.
Around here it's hard for a person to stay in school.

146.
Most of those who are here in school will graduate from high school.

147.
Many of us would like to go to college.

148.
College costs too much for most of the people around here.

149.
Most of those who are in school here are smart enough to get through college without too much trouble.

150.
Most kids here don't like school.

IF YOU HAVE ANSWERED ALL OF THE QUESTIONS ON THIS PAGE, GO ON TO THE NEXT PAGE.

Name______________________________Date______________School Grade___________

Opinion Scale S - P

The statements which follow describe different ways that parents or people who bring up children act toward children. Read each question carefully and think how well it describes how your parents acted while you were growing up. Think especially about the time before you were 14 years old (when you were in junior high school or before).

Circle the number if front of the choice which you think was most true of the person who brought you up. For example, if you recall that your mother always let you off easy when you were bad, you would mark the question as follows:

1. She let me off easy when I was bad.

    1. always
    2. most of the time
    3. seldom (rarely)
    4. never

Who really brought you up as a child, was closest to you?

1. own mother
2. stepmother or adoptive mother
3. grandmother
4. aunt
5. some other woman
6. father

Now answer the following questions with regard to this person.

1. I could talk with her about everything.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

IF YOU HAVE ANSWERED ALL OF THE QUESTIONS ON THIS PAGE, GO ON TO THE NEXT PAGE.

2. When I went someplace for the first time, she came with me to make sure that all went well.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

3. She insisted that I ask her first when I wanted to go to a movie or some other place.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

4. She wanted me to try hard in anything I did.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

5. I could talk her into most anything.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

6. She was fair when she punished me.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

7. She appeared hurt and sad when I was bad.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

8. She was happy when she was with me.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

9. She made me feel good and helped me when I had troubles.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

10. She worried that I couldn't take care of myself.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

11. She wanted to know how I spent my money, when I wanted to buy some little things for myself.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

12. She wanted me to do better than other children.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

13. She let me off easy when I was bad.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

14. When I had to do something for her she told me why she wanted me to do it.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

15. She made me feel ashamed and unhappy when I was bad.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

16. She said nice things about me to other people.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

17. I had the feeling that she was there for me when I needed her.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

18. She wouldn't let me roam around because something might happen to me.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

19. She told me when I should come home.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

20. She wanted me to get very good marks in school.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

21. When I did things she didn't like she punished me.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

22. When she punished me she always told me why.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

23. She told me, "I don't want to have anything more to do with you," when I did things she didn't like.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

24. My mother (person who brought me up) was very good to me.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

25. She let me know that she was happy when I had done something good.

    1. always
    2. most of the time
    3. sometimes
    4. seldom (rarely)
    5. never
    6. don't understand this question

26. As punishment she made me go away from her.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

27. She taught me things which I wanted to learn.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

28. She taught me things which I need to learn.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

29. She told me that other children were better than I was.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

30. She slapped me and hit me.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

31. She punished me by making me do extra work.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

32. She went on walks and did nice things with me.

1. almost every day
2. about once a week
3. about once a month
4. only once or twice a year
5. never
6. don't understand this question

33. She wanted me to help her.

1. almost every day
2. about once a week
3. about once a month
4. only once or twice a year
5. never
6. don't understand this question

34. As punishment she did not let me play with other children.

1. almost every day
2. about once a week
3. about once a month
4. only once or twice a year
5. never
6. don't understand this question

35. She helped me with the things I liked to do.

1. almost every day
2. about once a week
3. about once a month
4. only once or twice a year
5. never
6. don't understand this question

36. She yelled and screamed at me.

1. almost every day
2. about once a week
3. about once a month
4. only once or twice a year
5. never
6. don't understand this question

37. She spanked me.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

38. As punishment she did not let me do things I like to do.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

39. She liked talking with me.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

40. She expected me to take care of my own things.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

41. As punishment she sent me to bed early.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

42. She would like to help me with my schoolwork if I found it very hard.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

43. She has helped me with my school work when I didn't understand something.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

44. She said she would spank and hit me.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

45. As punishment she took the things I liked best away from me.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

46. She wanted me to help around the house.

    1. almost every day
    2. about once a week
    3. about once a month
    4. only once or twice a year
    5. never
    6. don't understand this question

OPINION SCALES A - A[1]

(First Page of Original Test Form)

Listed below are some things people have said about how they really feel. Please read each statement carefully, think about it and then indicate in the space provided what you really think about the statement. You can show us what you think by putting an "X" in the column. Just put one "X" for each statement.

PLEASE ANSWER ALL QUESTIONS. DO NOT LEAVE ANY UNMARKED.

EXAMPLE:	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree	Don't Understand Question
President Johnson is doing a very good job of running the country.					

(This answer indicates strong disagreement with the statement)

1. I often feel people around here are not too friendly.					
2. Trying to figure out how to get ahead in life is just too hard.					
3. Most of the time I feel that the work I'm doing is important and useful.					
4. In spite of what some people say, things are getting worse all the time.					
5. I often feel left out of things that are going on around here.					
6. Most of the people I know seem to have different ideas than I have about the kind of life they want for their children.					
7. People around here are having a hard time. It's up to me to try and help out.					

---

[1] In the original tryout the item and answer forms were layed out in this manner.

APPENDIX B

Specific Items for Various Factor Attitude and Orientation Scales with Factor Loadings for Subsamples

ALIEN I: Powerlessness

Factor Loadings							
Indian			White			Item	
Grps 1	2	T	1	2	T		
432	303	229	283	163	232	2	Trying to figure out how to get ahead in life is just too hard.
067	-087	312	596	093	521	24	Things are changing so fast these days that one doesn't know what to expect from day to day.
457	467	368	420	545	339	25	I feel that I just can't do anything right.
341	244	328	065	489	212	26	I often feel as if it would be good to get away from it all.
260	314	310	353	179	235	29	It's getting harder and harder to have a happy family.
193	-060	223	394	162	339	39	In order to get along in the world it's best to do what you are told.
458	123	397	497	108	351	44	Raising a small child today makes anyone worry a lot.
111	-053	333	372	-038	322	45	These days a person must look out for himself since there is no one else to depend on for help.
075	086	334	205	130	209	55	Most people don't know how much their lives are run by other people.
200	079	393	353	216	270	59	Today a person can hardly do the things he would like to do.
389	380	330	251	471	375	62	Sometimes I have the feeling that other people are using me.
302	080	483	108	071	091	64	People are too busy to help each other today.
387	192	563	410	341	492	69	There are so many problems to deal with today that sometimes I could just "blow up."
239	081	510	569	284	533	74	People say so many different things that one does not know what to believe.

Indian			White			Item	
Grps 1	2	T	1	2	T		
352	134	430	564	152	537	82	There are so many ideas about what is right and wrong these days that it is hard to know how to live your own life.
370	297	420	611	176	576	83	These days it's hard to make up your mind about anything.
434	340	448	378	262	535	86	Sometimes I feel that I am not sure where I'm going in life.

ALIEN II: A Conformist, Protestant Ethic vs. an Anti-Social Hopelessness

Factor Loadings							
Indian			White			Item	
Grps 1	2	T	1	2	T		
347	-039	364	169	351	198	3	Most of the time I feel that the work I'm doing is important and useful.
511	425	493	012	-001	339	20	One can always find friends if he shows that he is friendly.
476	622	526	311	118	235	27	The kind of work a person does is one of the most important things in his life.
605	421	544	247	348	405	37	If a man will work hard and get the right training, he can be pretty sure of getting a good job later on.
300	138	233	200	608	055	40	When everyone else gives up on you, you can always rely on your family for help.
463	450	453	450	496	472	41	Success is more a matter of real ability than luck.
-234	-103	-225	-571	-255	-488	52	There is not much chance that people can really do anything to make this country a better place to live in.
536	401	487	548	445	447	53	In most ways, life seems worthwhile.

Indian			White			Item	
Grps 1	2	T	1	2	T		
-147	-314	-211	-022	-017	063	54	It seems to me that people are acting more and more like animals.
-089	-207	-226	-007	024	-374	63	So many people do things well that you might just as well not keep on trying.
-161	-018	-201	-055	-349	-071	66	If I could live well without working, I would not work.
127	-237	-307	-191	-327	-369	67	Nothing seems to turn out right anymore, so why even try.
-217	-183	-282	-175	-533	-344	71	As I see it now, the future looks pretty empty for me.
483	478	530	402	188	505	78	If one works hard enough he is likely to make a good life for himself.
351	488	400	378	455	179	79	Usually I feel that I can control what happens to me.
405	468	450	411	124	316	85	What you learn in school is useful all through life.

ALIEN III: Meaninglessness

		Factor Loadings					
Indian			White			Item	
Grps 1	2	T	1	2	T		
165	275	216	227	201	211	19	With so many different religions around, one doesn't really know which to believe.
564	400	436	272	318	345	23	If you want to be liked the best thing to do is go along with the crowd.
454	538	433	327	041	294	43	There is little one person can do to make the world a better place in which to live.
360	090	361	244	015	232	49	A grown-up person doesn't have to depend on his family, church, or friends.

Indian			White			Item	
Grps 1	2	T	1	2	T		
441	534	428	594	657	151	58	There is little chance to get ahead on a job unless a man gets a break.
540	600	570	637	661	217	61	Getting a good job usually depends on being lucky enough to be in the right place at the right time.
634	589	680	507	615	143	73	A person's future is a matter of luck.
389	224	409	077	409	228	77	Most of the unhappy things in my life have been due to bad luck.

ALIEN IV: Hopeful Friendliness

Factor Loadings							
Indian			White			Item	
Grps 1	2	T	1	2	T		
532	552	574	486	499	364	16	The world in which we live is really a friendly place.
587	693	592	617	602	554	38	The future really looks pretty good.
552	556	567	329	448	476	56	With the kind of young people coming along today, our country will be in safe hands.
470	500	493	222	596	423	72	I feel that people understand each other more nowadays than in the past.
681	640	648	616	675	580	87	The world is becoming more and more a better place to live in.

ALIEN V: Psychosocial Isolation

Factor Loadings							
Indian			White			Item	
Grps 1	2	T	1	2	T		
351	295	366	400	466	555	1	I often feel people around here are not too friendly.
373	599	577	359	670	665	5	I often feel left out of things that are going on around here.

Indian Grps 1	2	T	White 1	2	T	Item	
227	537	439	200	560	539	12	Sometimes I feel all alone in the world.
618	570	617	456	599	692	13	I don't get invited to friends' homes as often as I'd really like.
480	466	489	575	324	422	34	I feel that I'm losing everything I've gained in life.
624	436	495	426	329	362	35	I often get the feeling that my ideas are out of date.
521	659	618	424	626	609	76	I don't have as many good friends as I'd really like.

ALIEN VI: Normlessness

Factor Loadings

Indian Grps 1	2	T	White 1	2	T	Item	
418	336	273	528	629	646	32	Sometimes it's all right to get around the law if you don't actually break it.
572	366	304	242	348	328	42	When you want something it really doesn't matter how you go about getting it.
142	466	582	698	637	660	47	You have to be a little bit bad to make money these days.
258	564	542	710	713	691	51	To get ahead today you sometimes have to be bad as well as good.
441	047	249	145	140	151	58	There is little chance to get ahead on a job unless a man gets a break.
334	250	263	258	314	371	84	These days, getting ahead is the only thing that counts.

ACHMOT I: High Aspiration - High Drive

Factor Loadings							
Indian			White			Item	
Grps 1	2	T	1	2	T		
560	618	582	691	658	677	90	I would like to do something really big.
763	742	707	790	795	788	91	I like to take on jobs that others know are hard.
326	743	721	790	722	766	92	I like to be able to do things better than other people.
236	634	621	642	610	634	93	I'd like to be an expert in some job, or something else.
709	770	766	853	812	830	94	I like to do things that other people find hard.
279	004	098	196	198	204	95	I enjoy work.
372	211	236	027	136	076	119	I enjoy doing hard work more than that which is easy.

ACHMOT II: Work Anxiety

Factor Loadings							
Indian			White			Item	
Grps 1	2	T	1	2	T		
369	330	165	558	204	229	96	I get mixed up when a job makes you do a number of different things.
544	624	629	267	356	141	97	Often I don't do a job I know I should.
592	173	528	034	427	241	98	When people say I'm not doing well on a job it slows me down.
493	665	529	212	668	308	106	I have trouble getting started doing things I should do.
667	274	530	724	425	412	107	I try so hard to do the things I should that I usually do not do as well as I would like.

	Indian			White			Item	
Grps	1	2	T	1	2	T		
	556	100	416	071	031	496	108	Someone looking over my shoulder when I am working makes me very nervous.

ACHMOT III: Reluctant Effort with Aversion to Reading

Factor Loadings

	Indian			White			Item	
Grps	1	2	T	1	2	T		
	213	128	161	235	-070	125	103	I hate to face up to a hard job.
	-756	-432	-655	-776	-806	-818	113	I try to read many books each month.
	736	748	760	757	796	777	123	I do not like to read.
	418	731	623	691	576	624	124	I have trouble remembering what I read.

ACHMOT IV: A Calvinist Work Ethic

Factor Loadings

	Indian			White			Item	
Grps	1	2	T	1	2	T		
	573	109	499	483	666	585	89	I like to do my very best in whatever I try.
	616	209	625	525	131	238	105	Even though I may worry about something I have to do, I usually get it done.
	388	722	161	665	667	594	110	It is the steady worker who usually gets the most done.
	710	534	534	482	324	318	111	I try to do things well, even though I may not like them.

ATS I: School Continuation vs. Rejection

Factor Loadings Indian Grps 1	2	T	White 1	2	T	Item	
-628	-457	-196	-605	-139	46	130	As soon as I get the chance I will probably leave school.
781	537	436	659	609	6	132	I hope that I can go to college after I finish school.
554	537	622	317	242	26	137	I like to try to get good grades in school.
528	513	697	662	327	225	138	My mother (the person who brought me up) would like me to do well in school.
-299	-654	-252	-750	-534	-672	139	I don't see any good reason to stay in school.
-366	-556	-339	-658	-608	-527	144	If I left (quit) school, I wouldn't really miss anything.
406	173	175	343	591	279	147	Many of us would like to go to college.

ATS II: Teacher Acceptance or Rejection

Factor Loadings Indian Grps 1	2	T	White 1	2	T	Item	
-230	-425	-352	-627	-343	-532	125	I find it hard to get along with my teachers.
723	730	745	815	798	800	128	The teachers here are very helpful and friendly.
675	677	624	673	463	655	134	I would like to be like my teachers.
744	733	752	800	790	778	135	The teachers here really like the children and want to help them.
-564	-091	-299	-505	-591	-551	136	I don't think that the teachers really know what is good for the children.
-424	-359	-433	-486	-593	-511	140	The teachers don't really like the parents of the children here.

Indian			White			Item	
Grps 1	2	T	1	2	T		
-176	-152	-075	-227	-491	-364	141	The work the teachers want you to do is just too hard.

ATS III: School Uselessness

Factor Loadings

Indian			White			Item	
Grps 1	2	T	1	2	T		
722	647	586	596	752	749	129	School doesn't really help a person to make a better life.
322	457	241	614	218	205	131	Children learn things at school that make them be disrespectful or mean to their parents.
619	654	537	156	526	672	139	I don't see any good reason to stay in school.
667	576	682	674	462	670	142	What you learn in school doesn't really mean very much outside of school.
420	556	369	094	131	527	144	If I left (quit) school, I wouldn't really miss anything.

ATS IV: "Rational" Dislike of School

Factor Loadings

Indian			White			Item	
Grps 1	2	T	1	2	T		
297	-091	247	749	667	576	127	I often feel trapped and helpless in school.
503	317	492	262	516	370	145	Around here it's hard for a person to stay in school.
661	801	752	313	631	649	148	College costs too much for most of the people around here.
781	201	644	267	635	640	150	Most kids here don't like school.

CHREAR I: Rejecting Punishment

Factor Loadings							
Indian			White			Item	
Grps 1	2	T	1	2	T		
198	209	379	175	108	311	26	As punishment she made me go away from her.
319	311	409	156	066	128	29	She told me that other children were better than I was.
332	344	645	221	299	238	30	She slapped me and hit me.
528	540	530	182	630	431	31	She punished me by making me do extra work.
672	638	644	716	619	713	34	As punishment she did not let me play with other children.
523	405	691	281	297	240	37	She spanked me.
585	706	585	442	667	531	38	As punishment she did not let me do things I like to do.
709	666	614	701	589	656	41	As punishment she sent me to bed early.
379	568	731	298	316	303	44	She said she would spank and hit me.
697	750	689	627	723	714	45	As punishment she took the things I liked best away from me.

CHREAR II: Restrictive Concern

Factor Loadings							
Indian			White			Item	
Grps 1	2	T	1	2	T		
498	632	539	639	527	547	3	She insisted that I ask her first when I wanted to go to a movie or some other place.
345	339	610	596	552	610	10	She worried that I couldn't take care of myself.
302	169	240	210	218	177	17	I had the feeling that she was there for me when I needed her.

Indian			White			Item	
Grps 1	2	T	1	2	T		
635	631	572	423	693	592	18	She wouldn't let me roam around because something might happen to me.
452	722	610	563	655	617	19	She told me when I should come home.
074	209	269	265	318	224	21	She wanted me to get very good marks in school.

CHREAR III: Manipulation by the Child

Factor Loadings							
Indian			White			Item	
Grps 1	2	T	1	2	T		
685	769	677	654	634	707	5	I could talk her into most anything.
600	725	730	723	380	740	13	She let me off easy when I was bad.

CHREAR IV: Independence Training and Responsibility

Factor Loadings							
Indian			White			Item	
Grps 1	2	T	1	2	T		
115	170	138	379	735	683	4	She wanted me to try hard in anything I did.
175	258	172	457	716	565	20	She wanted me to get very good marks in school.
571	687	636	044	202	274	33	She wanted me to help her.
662	650	579	638	472	575	40	She expected me to take care of my own things.
524	737	688	612	568	675	46	She wanted me to help around the house.

CHREAR V: The Helping Mother

	Factor Loadings							
	Indian			White			Item	
Grps	1	2	T	1	2	T		
	217	165	247	281	392	254	9	She made me feel good and helped me when I had troubles.
	686	579	761	610	619	689	27	She taught me things which I wanted to learn.
	677	603	748	631	738	783	28	She taught me things which I need to learn.
	546	428	497	210	695	456	35	She helped me with the things I liked to do.
	227	811	206	122	136	101	42	She would like to help me with my schoolwork if I found it very hard.
	240	825	308	104	244	173	43	She has helped me with my school work when I didn't understand something.

CHREAR VI: Mutual Love and Understanding

	Factor Loadings							
	Indian			White			Item	
Grps	1	2	T	1	2	T		
	515	351	663	459	575	247	1	I could talk with her about everything.
	232	463	475	236	196	113	2	When I went someplace for the first time, she came with me to make sure that all went well.
	597	402	114	503	270	570	6	She was fair when she punished me.
	558	603	424	676	474	347	8	She was happy when she was with me.
	298	374	137	175	570	625	14	When I had to do something for her she told me why she wanted me to do it.
	218	287	-021	594	582	369	16	She said nice things about me to other people.
	491	543	214	190	492	650	22	When she punished me she always told me why.'

	Indian			White			Item	
Grps	1	2	T	1	2	T		
	569	420	310	223	469	497	24	My mother (person who brought me up) was very good to me.
	327	391	189	323	378	421	25	She let me know that she was happy when I had done something good.
	246	252	370	511	098	199	32	She went on walks and did nice things with me.
	-194	-210	-267	-127	-213	-192	36	She yelled and screamed at me.
	410	308	240	763	138	137	39	She liked talking with me.

APPENDIX C

The Total Rotated Factor Loadings for all items on all scales with all subgroups are not included here. These comprise some 30 legal size pages with about 15,000 entries. They may be requested from the writer; however, Appendix B contains what would normally be considered the essential factor loadings. Communalities and eigenvalues are available also on request.

Instructions for Administering the Personal Distance Experiment

Appendix D: Personal Distance Experiment (K. B. Little, 1966)

Directions

General

The basic purpose of the Doll Placement Technique is to find out how the child thinks two people stand in a given situation. The situation is described verbally by the experimenter. For example, "Two boys who are talking about going fishing," or "A teacher scolding s student." The child then places the two figures as he thinks they should be for the situation described. Scores are the distance between figures and the angle of placement of one to another but notes are kept on what the child thinks the people are saying.

Materials

The materials required are a set of dolls (an adult male (M), an adult female (F), one small-sized child (C), and one medium-sized child (A)), 12 inch x 18 inch sheets of paper, pencils (with sharp points), and a pad of answer sheets. A clip board is handy for the latter.

Procedure

The children should be tested by themselves in a reasonably quiet room provided with a desk or table and two chairs. The best position is to have the child sitting at a long side but towards the left end of the table or desk with the experimenter seated to the right and slightly behind him. This permits using the right end of the desk for materials, i.e., dolls and a stack of paper. There is no objection to the child seeing the set of dolls or even handling them if he wishes before the start of the examination.

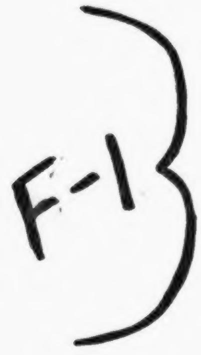
After the child is seated a sheet of paper should be placed in front of him and the examination introduced as follows: "I'm (or "We are") trying to find out how the children in your classroom think two people would stand when they are talking together or doing something together. We will use these doll figures (point to them) so you can show me how you think they would stand. For example, if two children were playing catch they might be like this (place the two child figures at either end of the paper facing each other) or if one was telling a secret to another, they might stand like this (place two child figures touching face-to-face in the middle of the paper). Do you see how it is done? Good! But before we start let me get some information. Your name is__________? How old are you________? And you are in the _______ grade? What is your teacher's name? What teacher did you have last year? Who was your best friend in the class last year? Who is your best friend in your class this year?"

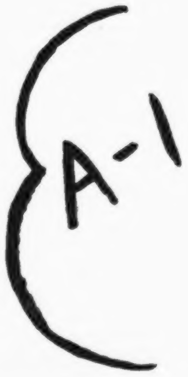
(Other information desired is who is the male head of the household when the child lives at home, e.g., father, uncle, grandfather, etc., and who is the female, e.g., mother, aunt, grandmother, etc.)

The information secured should be entered on the answer sheet. The above instructions do not have to be used word-for-word if some slightly different wording seems better. But words like "distance" or "How far apart", etc., should NEVER be used. All questions can be answered freely within the above restriction and any comments that may help to put the child at ease are alright. We want him (or her) to do the test as willingly as possible. After the information data is collected, go on as follows:

"That's fine. Now I'll have you try some of the dolls. Sometimes the dolls may not look too much like the people I say they are, but I'd like you to make believe and pretend that they do. The notched part on the bottom is the front of the doll. Suppose this is a new boy (girl, if the subject is a girl--pick up one of the figures--small one for younger children, middle-sized for older) and this one (pick male figure if subject is a boy and female figure if subject is a girl) is a teacher. The new boy is asking the teacher how to get to the classroom. Set them up so they look like a new boy asking a teacher how to get to the classroom. (Hand dolls to subject). That's fine. Now I'll just mark their places on the paper so I can remember how you placed them."

At this point take a pencil and mark around the front of the base of each figure about half way around, e.g.,





(The little notch in the center is the middle of the front of each figure from which we find out the angle of placement). Each figure position should be labeled with the number and letter (e.g., M-1, F-1, etc.) on the bottom of the doll. (Then in the upper right hand corner write the child's name and put a large number 1 (indicating that if was the first item).) Turn the sheet of paper over and proceed as follows:

"That was fine. Now let's do the rest of them."

At this point continue through the next items--2 through 10. (Item 10 will be a replication of item 1 to test for reliability.)

Items 2 through 10

In each item the intent is to find out how the child sees the physical relationship when an adult figure in the school is praising or scolding a child and when an adult figure in the home is praising or scolding a child.

For the school situation the adult figures are the teachers--for the home it is the male (father or male relative) or female (mother or female relative) with whom he lives. In case that there is no such figure in the home, e.g., no father or other adult man, the item may be skipped. For each item use the appropriate M or F figure and the appropriate size child figure. For items 2 through 9, wait until the child sets up the dolls, then ask him to tell you what they are saying to each other. Beside the number of the item, write on the answer sheet the main things that the child says, (e.g., what the child is being praised for or scolded for.)

2. Suppose this is (name of friend in last year's class) and this is (name of teacher of last year's class) and (teacher's name) is saying something nice about something (child's name) did. Now, set them up so they look right for ____________ saying something nice to ______________. Now tell me what they are saying to each other. Good, now let's do another one.
3. Suppose this is (name of friend in last year's class) again and this is (name of teacher of last year's class) and (teacher's name) is scolding (child's name) for something he did. Set them up so they look right for _______________ scolding ____________ for something. Now tell me what they are saying to each other.
4. Suppose this is (name of friend in this year's class) and this is (name of teacher in this year's class) and (teacher's name) is saying something nice about something (child's name) did. Now, set them up so they look right for _______________ saying something nice to _________________. Now tell me what they are saying to each other.
5. Suppose this is (name of friend in this year's class) again and this is (name of teacher in this year's class) and (teacher's name) is scolding (child's name) for something he did. Set them up so they look right for _______________ scolding _____________ for something. Now tell me what they are saying to each other.
6. Suppose this is you and this is your father (or appropriate male relative or guardian) and your father is saying something nice about something you've done. Now set them up so they look right for your father saying something nice to you.

Now tell me what you are saying to each other.

7. Suppose this is you and this is your mother (or appropriate female relative or guardian) and your mother is scolding you for something you've done. Now set them up so they look right for your mother scolding you for something. Now tell me what you are saying to each other.
8. Suppose this is you and this is your mother again and your mother is saying something nice about something you've done. Set them up so they look right for your mother saying something nice to you. Now tell me what you are saying to each other.
9. Suppose this is you and this is your father and your father is scolding you for something you've done. Set them up so they look right for your father scolding you for something. Now tell me what you are saying to each other.
10. That was fine. Now, I just want to make sure that we got the first one right. You remember it was a new boy (girl) who was asking a teacher how to get to the classroom. Would you set them up for me again so they show a new boy in the class asking a teacher how to get to the classroom?

After the last item, the child should be told that he did very well and returned to the classroom. When the child has finished, the sheets of paper should be folded with the answer sheet inside and stapled or paper-clipped together.

Common Problems

In general, if the child places the figures in any way other than facing each other (back to back, side to side, facing the same direction or lying down), allow him to do what he wants the first time. Then say "That's fine but show me how they would be if they were standing facing each other." Make a note of the first placement, but mark around the base when he places them standing up.

If the child says he thinks the figures should be sitting down talking, agree that that would be fine too, but say that in this case they are standing up.

If the child does not remember the name of his teacher last year, say "...and this is the teacher you had last year."

Interview and Assessment Forms for
Home and Parent Measures

APPENDIX E

Codes

Parental Questionnaire Code

Items	
7,8,12	Attitude toward schools(low score=positive attitude)
29,35	Attitude toward the government(low score= positive attitude)
10,11,13,14,15,40	Attitude toward education(low score=positive attitude)
3a,3b,3c,4	Attitude toward child-rearing(low score= restrictive)
37,38,39,41,42,43	Achievement motivation(low score=high achmot)
16,17,18,19,20,21,22,23, 24,25,26,27,28,30,31,32, 33,34,36	Alienation(high score=high alien)

In most instances,

0 = Yes(most positive)

1 = Favorable comment(qualified)

2 = Doubt, both positions taken or strong qualifications introduced

3 = Unfavorable comment(qualified)

4 = No(most negative)

Interviewer Home Assessment

Items used to compute a socio-economic status index are 1 through 14.

Home Assessment

1. Construction	High score = Low SES
2. No. of Rooms	" " = High "
3. No. of Residents	" " = Low "
4. Lighting	" " = Low "
5. Water	" " = Low "
6. Washing Machine	" " = Low "
7. Refrigerator	" " = Low "
8. Radio	" " = Low "
9. Television	" " = Low "
10. Phone	" " = Low "
11. Automobile(not truck)	" " = Low "
12. Newspaper	" " = Low "
13. Father's Education	" " = High "
14. Mother's Education	" " = High "
15.[1] Church Attendance	
16. No. Who Go	
17. No. Times/Mo.	
18. Sunday School	
19. No. Who Go	
20. No. Times/Mo.	

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[1] Items 15-20 not used in SES index

Interviewer Home Assessment Form

Home of ____

1. House Construction
   _____Brick, Stucco, etc., or Painted Frame House
   _____Unpainted frame
   _____Cabin, dirt floor

2. Number of rooms ______________

3. Number of persons who live in house __________________

4. Lighting
   _____Electric lights
   _____Gas Mantle or gas pressure
   _____Oil lamps, candle, fire

5. Water
   _____Piped into house
   _____Outside

6. Washing Machine: Yes_____ No_____

7. Refrigerator
   _____Electric or Gas
   _____Ice Box
   _____Other or none

8. Radio: Yes_____ No_____

9. Television: Yes_____ No_____

10. Telephone: Yes_____ No_____

11. Automobile (other than truck): Yes_____ No_____

12. Family takes newspaper: Yes_____ No_____

13. Father's Education: Highest Grade Attained_____

14. Mother's Education: Highest Grade Attained_____

15. Does Family attend church: Yes_____ No_____
    a. Who goes________________
    b. How many times a month__________
    c. Does anyone in family go to Sunday School Yes_____ No_____
    d. Who goes to Sunday School__________________________________
    e. How many times a month is Sunday School attended?__________

The following questions are part of a large study. In this interview, we want to know how you feel about a number of different things, for example, your feelings and beliefs about how children should be brought up. Please speak freely. Thank you for your help and cooperation.

Name______________________________

Related to_________________________

Relationship (Mother, grandmother, etc,)___________________________

If not person specified originally, please say why__________________

____

About how long has this person lived in the same home (or taken care of) with the specific child in question____________________________

____

Other comments:

1. How do you feel children should be brought up? (for example; when children are bad, should they be punished? If so, how? Should parents tell children what to do or should the children make up their own mind about different things?

2. What kind of things did your children (or those you brought up) do that made you angry? And what did you do when they did such things?

3. Do you think children should

   a. take care of their own things? Yes No

   b. ask their parents for permission before they go some place or do something for the first time? Yes No

   c. help their parents around the house or when their parents are working hard? Yes No

4. Do you think parents should hit or spank their children when the children make the parents unhappy?

5. Tell me. What is a good mother like? Describe the kinds of things a good mother would do for her children.

6. Now tell me what a good father is like? What would he do for his children?

7. Now I would like to ask you some questions about the schools the children around here go to. Do you feel that the teachers and principals want to do that which is good and best for the children?

8. Do you think that the teachers understand the children?

9. If you feel they do not understand the children, what do they do that is wrong?

10. Do you think that the children around here really should try to graduate from high school?

11. Do you feel that if the children quit school, they will really miss anything important?

12. Do the children around here like to go to school?

13. Should the children here go on to college if they finish high school?

14. Do you think school helps the children to make a better life for themselves?

15. Should the children work hard and get good grades in school?

16. Do you feel that the people on the reservation are friendly?

17. Are things around here getting worse all the time?

18. If someone else around here is in trouble should you try to help out?

19. Does it matter if you do something bad if it leads to a good thing?

20. Do you feel others will help you if you have trouble?

21. Should you try to do the things that make you happy or do the things others think are right?

22. Is it getting harder and harder to have a happy family?

23. Do you feel that you can trust the others around here to do that which is right?

24. Is it alright to get around the law if you don't really break it?

25. Do people around here do what they want to do or do they do what they have to do?

26. Do you think the future looks pretty good or bad for the people around here?

27. When a person around here makes a good life for himself is it because he worked hard or because he just had good luck?

28. Do you feel that you have to be a little bit bad to make money these days?

29. Are the government people trying to help out around here or are they out for themselves and their friends?

30. Are the people around here too busy to help each other today?

31. Is more expected of a man than he can really do?

32. Is a person's future largely a matter of what luck has in store for him?

33. Is it true that people say so many different things one doesn't know what to believe in?

34. Do you feel people can control what happens to them?

35. Are the government people interested in your problems?

36. If people would work hard would they make a good life for themselves?

37. Do you like to do things that other people find are hard?

38. Is it important to finish a job once you start it?

39. When you went to school, did you enjoy it?

40. Do you wish now that you had gone further than you did in school?

41. Usually if you have to do something, it can be done as well tomorrow as today?

42. Do you like to read?

43. If a job is hard and not very interesting, is it alright to try to get out of doing it?

44. How far did you go in school? (List grade) ______________